The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

Vol. 88, No. 21 CHICAGO, ILLINOIS MAY 21, 1927

MEDICINE: ITS ACCOMPLISHMENTS AND ITS NEEDS*

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It is a great privilege to have lived in the present generation. Within its span more has been added to the sum of human knowledge than in any previous period of the world's history. The Golden Age it has been called—the Age of Science. Discovery after discovery has followed in such rapid sequence that the mind of ordinary man is awed with amazement. Fundamental principles of science, slowly comprehended through long periods of time past, have suddenly found practical application beyond even the vision of the dreamer. Through them man has been given mastery in a measure over land and sea and sky. The application of power to motion has revolutionized transportation and conquered space. By wire, by cable, by radio, through the air practically instantaneous communication around the world has been made possible. News and knowledge are thus promptly interchanged and the advances of one become the heritage of all. Machine power has lifted much of the burden from the human back and multiplied infinitely the possibilities of production. Cooperation has replaced segregation. Progress has been the watchword.

In the fields of medicine the workings of science have been none the less remarkable, though less obvious to the general eye. When the microscope first enabled us to comprehend the fundamental cellular structure of the body, the key to the ultimate interpretation of life was put in our hands. When Pasteur discovered the existence of other cellular organisms capable of attack on human cells, he gave to our science its first knowledge of the essential cause and nature of much of disease, and the new science of bacteriology was born. Through it pathology found a new interpretation and became a vital study. The culture tube and the reagent brought chemistry into the field, and through the three the laboratory became the center of medical investigation.

Brief though the span since the birth of these sciences, their contributions to human welfare have been numerous and of value inestimable. The knowledge of how to prevent many diseases has alone saved to the world countless lives and immeasurable expense. Cholera, which once with its death scythe stalked through nations, has become now but a name. Yellow fever, which almost annually gleaned its thousands of human lives and paralyzed commercial activity, has been driven to the far recesses of Africa, where the few cases reported in the past year evidence its dying gasps. The sanitary control of malaria and other infectious fevers made effective by Gorgas built the Panama Canal and rerouted the commerce of the world. Can one find figures in dollars and cents to estimate the commercial value alone of such contributions of preventive medicine? And these are only a few illustrations from this field.

Can one measure the numbers and the values of the lives of the many youngsters snatched from the jaws of diphtheria by the use of antitoxin, to say nothing of the anguish of apprehension and grief lifted from the hearts of parents? Typhoid alone forty years ago kept medical men supplied with a lucrative annual income, and its ravages in time of war frequently accounted for more lives than did bullets. Today through modern sanitation and with preventive inoculations, its existence has become a disgrace to the community and in an army almost a crime.

May these illustrations, few though they be, stand as a test to the efficiency of the "Great Medical Trust"—the only trust that ever existed to save billions of dollars and millions of lives and countless sorrow to mankind at the expense of its own sources of income.

CONTRIBUTIONS OF MEDICAL AND SURGICAL SCIENCE

The curative contributions of medical and surgical science have been no less notable, though obviously less noted. No one can estimate how many annually paid the toll of death in days gone by to what we may here call, in general, surgical diseases. With the almost inevitable infection and ofttimes death from wounds and surgical efforts, much of the body remained terra incognita until the postmortem table was reached. The immortal work begun by Lister in carrying the observations of Pasteur into the surgical field provided a revolution more significant than a revolution of arms—the one bringing peace and life, the other pain and death. The impunity with which the physical body could now be invaded enabled the bold surgeon to explore hidden disease and to bring to light the knowledge of their beginnings at a time when they might be amenable to cure; and from these early explorations an interpretation of hitherto unknown signs.

It seems almost strange in this day to recount that it was only in the eighties of 1800 that appendicitis was recognized as a definite entity and its sequences understood. Even as late as 1893 I heard a supposedly learned man say, "I have practiced medicine forty years and have never seen a case of appendicitis." And what is said of appendicitis is true of numerous diseases of other organs in which modern surgery has not alone offered relief from the disease but has equally contributed to the knowledge of earlier symptoms and of pathologic sequences. Surgery has thus been of great aid to general medicine, as well in clarifying progressive diagnosis and in making pathology a living science instead of alone a deadhouse investigation. Likewise the possibility of safe and painless experimental surgery in the lower animal has been of great value. It has enabled us to test out and perfect surgical technic on the dog instead of at the expense of human life. It has as well given new life to the science of physiology through our ability actually to demonstrate processes in vivo. Many problems are thereby being solved today which heretofore were inexplicable, and, as Morris says, "a new age, the Age of Physiology, has been born." And to it perhaps we may say the future looks with its greatest expectations.

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* President's address before the American Medical Association at the Seventy-Eighth Annual Session, Washington, D. C., May 17, 1927.

Finally, it would be remiss not to mention the contribution by science in this generation of another notable aid both to diagnosis and to therapy—the roentgen ray. Through it we have been enabled to visualize conditions which the eye alone could never see and thus to make diagnoses hitherto impossible. So important are its contributions that the roentgen-ray laboratory has become as necessary to medical science as the laboratories of bacteriology, pathology, physiology and chemistry. Its therapeutic contributions have merely to be mentioned.

These fragmentary remarks will serve to recall the marvelous contribution of this wonderful generation and a vision of their practical benefits to the world. In this period fifteen years has been added to the span of human life; lives have been saved, suffering relieved, derelicts and crippled restored to productive and happy existence; pestilences mastered, commerce saved, civilization recast—surely a record entitling medical science to a vast credit balance.

NEW STANDARD OF SERVICE, BASED ON PROGRESS OF SCIENCE

And now we turn to face the future. With the inspiration of such a heritage we can but face it with roseate expectations. And yet it will probably be a different age, probably less romantic. The age of the pioneer is always one of thrills. Facing uncharted fields with uncharted paths, each day is a new day and its future in "the laps of the gods." We read with bated breath the lives of the pioneers of history and memorialize them in story and in song, the heroes of hardship and of triumph. But let us remember that the builder is equal to the hewer, the organizer more important finally than the discoverer. The paths of progress have been fairly well blazed, but progress must be ever onward. The doctor of today faces the future as quite a different man from the one who entered medicine a generation ago. Then his equipment was rather a meager education with little absolute knowledge. His resources were his own faculties of deduction from the observation of his own senses. Today he is an educated man to begin with, inheriting the knowledge of the past and aided by all the resources that science can add. Much will be expected of him, much of cooperation will be required. The laboratory and the hospital must be at his command, for the people of today have been educated to a new standard of service.

SHORTAGE OF PHYSICIANS IN RURAL COMMUNITIES

We hear much discussion today of the lack of general practitioners and particularly of the shortage of physicians in rural communities. But could we expect otherwise? A generation ago the physician of even a small community could make a respectable living annually in the treatment of a few diseases. Typhoid, malaria and the summer dysenteries alone kept one pretty busy through a considerable part of a year, and his horse and buggy for transportation with his own limited senses for diagnosis and a saddle bag of medicines for treatment were his complete equipment. Often he guessed—and guessed well for his training—and nothing more was expected. Now he must be equipped with at least the essentials of a laboratory; must cover a larger territory, in an automobile; must have the aid of a nurse in severe illness; and finally must refer a large and perhaps the most valuable part of his business to a specialist better equipped or to a hospital where facilities are at hand. Is it surprising that the modern man trained to modern ideas looks elsewhere? The community of the future that expects modern medical service must expect to furnish the essential necessities for such services. The laboratory, the hospital and the opportunity for cooperation become henceforth the prime problems of medical practice. These requisites are offered in larger centers—though even here not entirely adequately. And in some more progressive communities the need is being foreseen. County or local hospitals are becoming more numerous year by year. But they must become practically universal. It is true they present possibilities for much criticism; but, after all, they are essential, and time alone can remedy the causes of criticism.

NEED OF ENDOWED HOSPITALS

Now modern hospitals with laboratories and trained assistance cost money. Likewise, unfortunately, as the demands of science increase and the expense of everything connected with the hospital increases in measure the problem becomes a big one. There was a time when perhaps a hospital might be built as a productive investment and thus elicit interest. Forty years ago an endowment of $5,000 was adequate to provide for the support of one bed of hospital service constantly occupied for a year—$300 a year. The hospitals of that period were of cheap construction and with little equipment. Expensive construction and expensive equipment, laboratories and roentgen-ray apparatus, machinery for electrotherapeutics and hydrotherapy, trained nurses and salaried chiefs of departments—these products of progress have changed the picture. Today the cost of care of a patient in a city hospital ranges from $4 to $8 a day. This does not include the expense of special nursing or other services of like nature. It does not consider the doctor's service at all. It may be admitted that in many individual cases much of the diagnostic and laboratory expense is not essential. The people, however, have been educated to expect it and to demand it. Yet as a rule they are amazed at what they usually consider an exorbitant hospital bill. Facts, however, are inexorable things. And it must be recognized as an inescapable fact that the actual expense of hospital service is such that few hospitals today can make both ends meet without outside aid.

Likewise it must be recognized that the provision of a hospital is not a personal gift to the medical profession. In a pecuniary way the medical profession profits in no wise from the existence of a hospital. It is curious how people often think otherwise and apparently believe that when they build a hospital they are making a generous gift to the physicians of the community. The hospital is no more a personal contribution to the physician than is the court house a gift to the legal profession. Court houses are built in order that personal and property rights of men may be protected by proper legal processes. Is it not equally worth while to provide facilities for the protection of the health and lives of men? The court house is an old institution and the necessity of its provision by public funds has long been recognized. The hospital is the outgrowth largely of a new and scientific medicine. Its necessity and its importance to the community must likewise become generally recognized. If proper character of medical service is required in any community, adequate facilities must be offered to attract proper medical talent to a place where it can render the service to which it has been educated. In this way and in this way alone can rural counties solve the problem of their adequate medical service. Obviously, however, the heavy expense mentioned will not apply to smaller county hospitals. The figures cited were city figures.

The hospital and health problems are scarcely less acute in the centers of population. Here the best is expected and demanded, and the expense accordingly advances. In most cities the responsibility to the poor is fairly well recognized, and municipal or city hospitals are generally provided. And in such institutions let it be noted that the best of medical talent is always readily available, and always without compensation. In fact, it may be stated broadly that there is scarcely a medical charity in existence today that could continue to exist for twenty-four hours except for the gladly given and free service of medical men.

A city pays its counselors and legal talent, usually well. It pays its butcher and milkman, and its service of every other character. And it pays at full prices and sometimes, under political control, at more than full price. Is it therefore asking a favor when medical men serving gladly and without remuneration ask simply for such support in facilities as may enable them to give the best that is in them?

Still more acute than the problem of the city hospital for the poor which the city supports is the problem of the private or semiprivate hospital. Here the expense is easily met by the rich man. But what of the situation of that large and worthy class, sometimes called the middleman, ofttimes the finest of God's creatures? A young man of splendid character has completed an expensive education to make him a worthy citizen for a life of valuable service. He has married a fine young woman: maybe my daughter, maybe yours. Perhaps they have been blessed with a splendid child, or possibly two. This young man may some day be a millionaire. Today as an apprentice he receives only a modest salary. With it through much prudent thought and ofttimes denial they are starting a happy and promising family and home. When the necessary monthly bills are paid, however, the bank balance shows little or nothing. The wife is stricken with an attack of acute appendicitis and operation is required. Her case is a serious one and the services of a skilled nurse are required—in this day of "labor hours" in nursing, possibly two, maybe three, each at $8 a day. She recovers and he is happy. But when he calls at the office for his bill and then consults his bank balance he finds he is left hopelessly in debt for a long time to come. He would not accept charity branded as such. He is a man. This circumstance is not due to overcharge on the part of the hospital. It is not due to the expense of medical service. His surgeon waits—gladly and without pressing. He may decline to present a bill at all. It is no criticism of any one. But the problem is there.

There is but one answer. Years ago was propounded the question, "Am I my brother's keeper?" How will it be answered? Hospitals of such class must not only be built by men: they must as well be endowed. It has been considered most generously charitable to build a fine hospital and give it to the church or to the community or to an independent board of trustees. It cannot be made self supporting. A load of responsibility has been placed on some one's shoulders. It can be met only by further contribution from the same or other sources. Perhaps if an absolutely charity hospital, it will be endowed. But what the public must learn is that for the protection of the middleman endowment is also a necessity—endowment that will at least provide for the expense of purely scientific service, a service which in itself has no direct return; endowment that will equip adequate modern laboratories such as proper service demands; endowment that will provide at least modest compensation for the purely scientific laboratory expert who has no other source of remuneration and yet whose aid is a necessity to all who practice; endowment that will meet the expense which the "Generation of Science" has brought to medical service. Men of wealth have contributed most generously to the endowment of institutions for research, and we bow in acknowledgment of such wonderful contributions for the future good of mankind. The appeal of charity has likewise touched the heart and reached the pocket of men for contributions to absolute charity. And for such we give praise. But is there not possibly a higher service still: a service which unseen and unnamed is rendered to the man who is a man, though neither rich nor pauper—the fellow who builds a world, generous to rich and to pauper alike?

Argyle Building.

Collapse Therapy for Tuberculosis.—The considerable advances which it has been our generation's privilege to witness in the treatment of tuberculosis are due solely to one cause; namely, the rapid and universal development of that purely mechanical method which we call collapse therapy. Artificial pneumothorax, the early history of which dates back to more than a century ago, is based on the soundest anatomical and physiopathological principles. The reason it took such a long time before it was considered seriously is easy to explain. Two conditions . . . were indispensable to its being made a safe and controllable procedure: first, the advent of aseptic surgery, which put an end to the previously almost unavoidable risk of severe infection attending the simple puncture of the pleural cavity; and, second, the discovery of the x-ray, which enabled us to explore the inside of the chest and to observe the pathological changes in the lung with unprecedented clearness and accuracy. . . . That artificial pneumothorax is the greatest—I feel almost tempted to say, the only—recent advance made in the therapy of pulmonary tuberculosis, who can seriously doubt today?—Rist, Edouard: Recent Advances in the Treatment of Pulmonary Tuberculosis, *Am. Rev. Tuberc.*, March, 1927.

TRACHOMA AMONG THE INDIANS OF THE SOUTHWEST *

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Two years ago the Secretary of the Interior, Dr. Hubert Work, requested the American Medical Association to appoint a committee of ophthalmologists from the Association with whom he might confer as occasion demanded on the spread of trachoma among the Indians.

The trustees accordingly appointed Drs. Wilder of Chicago, Knapp of New York and me to serve on such a committee, Dr. Proctor of Boston being added to our number later on account of his familiarity with the Indian problem in the Southwest.

Last summer Dr. Wilder, the chairman of the committee, with Dr. Holloway of Philadelphia and others, visited some of the reservations in Oklahoma, and last autumn, in order to be in a better position to advise the secretary by making a personal survey and study of the situation at close range, Dr. Proctor and I visited the Southwest and inspected the most important Indian schools and hospitals in that region. We found trachoma among the Indians everywhere, children as well as adults exhibiting all stages of the disease, which differed in no way from the manifestations observed elsewhere. The youngest subject we saw was a 3 months old child, with numerous characteristic granules studding the conjunctiva of both upper and lower lids.

Some years ago the government made the education of Indian children obligatory and, when attendance at some nearby day school was impossible, enforced the rule requiring residence in one of its boarding schools. There are many such throughout the Indian territory; we visited only three—that at Albuquerque, N. M., Fort Defiance, Ariz., and Riverside, Calif. The Albuquerque school accommodates 830 boys and girls, the one at Fort Defiance is somewhat smaller, while the school at Riverside has almost 1,000 pupils. All three of these institutions are housed in large buildings provided with spacious playgrounds. The dormitories are roomy and airy, and each pupil has a separate bed on which the linen is clean. The children wash under running water and dry their hands and faces on small individual towels. The pupils appear well nourished, active and happy. Many had trachoma, and from our investigations it was apparent that, notwithstanding the sanitation of the schools, the disease is propagated there and that some pupils who enter in the autumn with unaffected eyes return to their homes in the summer with trachoma.

In attendance at each of these schools is a resident physician of the Indian Service who is more or less familiar with diseases of the eye, but with insufficient time and inadequate nursing at his command to give proper care in the trachoma cases under his supervision. No doubt owing to the increased knowledge of the disease acquired as a consequence of the campaign which the government has been carrying on against trachoma in recent years, we found all the physicians of the Indian Service with whom we came in contact able to recognize and properly treat the disease. No cases of mistaken diagnosis were observed; none of follicular or vernal conjunctivitis mistaken for the more serious affection of the conjunctiva.

Connected with each of the schools is a small hospital where sick children are cared for. In recent years the government has detailed three officers of the Indian Medical Corps to travel over the Southwest and treat trachoma cases only, and has established a small trachoma hospital in Albuquerque. It is doubtful how much good is accomplished by this "clean-up" kind of treatment, most of the cases so handled being children who demand more than one application of a surgeon's knife or scarifier before they can be pronounced cured. The comparatively few adults treated, most of whom have distorted cartilages, are in all probability benefited.

As is well recognized, trachoma is common among the adult members of the various tribes; 25 per cent, or perhaps more, of the Navajo and Pueblo tribes are said to have the disease, mostly in its cicatricial stages, though we observed all other types.

Among the villages we visited were Santa Clara, near Santa Fe, famous for its black pottery; Laguna, with its well conducted, though small, hospital and sanatorium for tuberculous subjects, and the far famed sky city of Acoma. We investigated the conditions of living in these localities and found them to be very conducive to the spread of disease. The majority live in hogans, or cabins, which are badly ventilated and do not offer hygienic facilities. Many members of the tribes are shepherds and when caring for their flocks are exposed to the extremes of cold and heat in winter and summer, and to the irritating dust of the desert, and have scant facilities for bathing or cleanliness. These tribesmen live as close to nature as is possible in a beautiful but ill favored region to support human life. I am speaking particularly of the 35,000 or more members of the Navajo tribe in whose reservation we spent most of our time.

On our return to Washington we conferred with the authorities and, in our advisory capacity, recommended to the Secretary of the Interior that trachomatous children in the schools be separated from those unaffected by the disease, and that their eyes be given continuous treatment until they can be pronounced cured and no longer capable of infecting the eyes of others.

We suggested that this might be best accomplished by the creation of hospital schools, somewhat after the plan of those in operation in London which were founded by the school boards there about twenty-five years ago.

To save expense we suggested that the department might convert one of the existing schools into such an institution, children with involved eyes taking the place of those free from the disease, who should be removed to other schools. Children with the disease should be detained in such an institution for years under constant medical supervision and treatment, receiving such education and manual training as their ocular condition permits. Children not having the disease will thus be able to pursue their studies without danger of infection from their schoolmates.

It is my opinion that the compulsory education program for children, admirable and necessary as it is, has been the chief cause of the increase of trachoma among the Indians in recent years. It has been the bringing together in close contact in the schools of children with the disease who under the old system of tribal life led a more or less isolated existence and consequently were less likely to give the disease to others.

The extermination of trachoma among the adult Indians, particularly those of the nomadic tribes, presents a very difficult problem. Added to the conditions

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* Read before the Section on Ophthalmology of the College of Physicians of Philadelphia, March 17, 1927.

of life, which are all unfavorable, is the problem of the "medicine man" and the religion of the Indians; the "medicine man" being regarded by them as not only a physical healer but a spiritual priest as well. If the Indian rejects his advice and spurns his medicine, he is endangering the future of his "spirit" and subjects himself to the opprobrium of his tribe.

It is hard to realize how exceedingly primitive many of these older Indians are in manner of living, and that few speak other than the Indian language. It will need the impress derived from the education of several generations of children before the adult Indian will be ready to receive and adopt the standards of living of the white citizens who surround him. In the meantime much can be done to supplement the training which their children are receiving by educational efforts directed to the adults themselves. This is difficult when dealing with nomadic tribes unfamiliar with our language, and can best be done, I am told, by the establishment of community centers, similar to those the government has already instituted in some places at trading posts and schools, which inviting conditions may beguile the older Indians to visit and there receive instruction through the medium of moving pictures and talks in their own language about better modes of life. Indian girls who have been trained as nurses, or other graduates of the schools who may show an aptitude for such service and who may impart to their elders some of the knowledge they have acquired in the schools, should be chosen.

More efficacious than traveling ophthalmologists and so-called clean-up campaigns would be the establishment of a number of hospitals for the treatment of eye diseases. These should be easy of access and should have ample provision for indoor treatment. There is a lack of hospital facilities in the Indian Service not only for treating diseases of the eye but also for general medical and surgical work. A first-class general hospital with modern laboratory and roentgen-ray equipment is badly needed in the Indian Service of the Southwest.

The cooperation of state health officers and of all organizations interested in the welfare of the Indian will be necessary to win the adult Indian to more hygienic ways of life. Incidentally, as the Indian rises to the white man's level in this respect, the government and all other agencies interested in Indian welfare will need to exercise increased vigilance to protect the neophyte from some of the evils of white companionship. "Fire water" is still as deleterious to the Indian as ever, and I am told that nearly all the arrests which are made in Indian reservations are for crimes instigated by drinking. The day will come, however, when the Indians, so far as manner of living is concerned, will be indistinguishable from the white people. Not until then, in my opinion, will trachoma cease to trouble them, for trachoma is a disease that flourishes only under adverse conditions of living; remove these and the spread of the disease will soon be controlled.

A final word as to local treatment. With one exception, all the physicians of the Indian Service with whom we came in contact are following a conservative plan of treatment, conserving the conjunctiva in the early stages, avoiding the mutilation of the mucous membrane, as advocated by Abadie and Darier, and getting rid of the trachomatous elements by expression and mild grattage, followed by applications of silver and copper. In the later stages when contracted cartilages irritate and cilia become inverted, tarsectomy is practiced. We saw some evil results of tarsectomy, such as retracted lids and undue scarring of the conjunctiva, and we heard of one case in which loss of both eyes followed the operation, no doubt from infection, the result of improper care during the operation or later.

Our committee is much gratified to learn of the recent establishment by the government of a trachoma hospital school at Fort Defiance, Ariz. This we believe is the most important step the government has thus far taken toward eradicating the disease. Should this school prove successful, others will without doubt follow throughout the Indian region. The government should receive the hearty commendation of the profession on the step it has taken, for there were obstacles in the way—natural prejudice on the part of Indian parents on being separated from their children, and other technical difficulties known only to the department. Dr. Richards, the medical officer in the Indian Service who will have charge of the school, has been long in the service and is thoroughly conversant with trachoma; he is conservative, an able administrator, and has the confidence of every one. There has long been a boarding school for Indians at Fort Defiance, on the site of the old fort which gave its name to the place, located some thirty miles north of Gallup, in Arizona, close to the New Mexico line. The spacious buildings are admirably situated at the foot of a beautiful canyon. Avenues of cottonwoods, set out by a provident early superintendent, give shade in a region otherwise bereft of trees. The present superintendent is able and popular, the whole institution being conducted in a manner that augurs well for the success of this very important undertaking.

THE ROSE BENGAL TEST FOR LIVER FUNCTION *

FURTHER STUDIES

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The value of rose bengal as a clinical test for the estimation of liver activity has been proved conclusively by preliminary experiments and observations.[1] Our purpose in this paper is to describe a simplification of the technic of the test, and to review briefly the types of liver injury which may be revealed by a test of this kind.

As has been described in our previous communications, rose bengal is a dye (di-iodo-tetra-chlor-fluorescein) of the triphenylmethane series, which is readily soluble in water or saline solution, and which is not toxic for the tissues of the human body. Although Norman and Schmidt[2] have shown that under the influence of direct sunlight the dye very readily hemolyzes red blood cells *in vitro*, this photodynamic effect does not seem to occur within the human body to an appreciable extent. Furthermore, it has been our practice to keep tubes of blood which contain some dye in a darkened container until the cells have been separated from the dye containing plasma by the centrifuge.

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* From the Departments of Medicine and Dermatology, University of California Medical School

[1] Delprat, G D. Studies on Liver Function Rose Bengal Elimination from the Blood as Influenced by Liver Injury, Arch Int Med **32:** 401-410 (Sept) 1923 Delprat, G D, Epstein, N N, and Kerr, W J A New Liver Function Test The Elimination of Rose Bengal When Injected into the Circulation of Human Subjects, ibid **34:** 533-541 (Oct) 1924 Kerr, W J Delprat, G D, Epstein, N N, and Dunievitz, Max The Rose Bengal Test for Liver Function Studies on the Rates of Elimination from the Circulation in Man, J A M A **85:** 942-946 (Sept 26) 1925 Epstein, N N, and Rauschkolb, J E. The Rose Bengal Test for Liver Function, with Particular Reference to Its Use in the Therapy of Syphilis, Arch Dermat & Syph **14:** 122-135 (Aug) 1926

[2] Schmidt, C L A, and Norman, G F Protection Afforded to Red Cells Against Hemolysis by Eosin, J Infect Dis **27:** 40 (July) 1920; Further Studies on Eosin Hemolysis, J General Physiol **6:** 681 (July) 1922.

It has been shown in our preliminary experimental work that rose bengal, after injection into the circulating blood, is eliminated almost entirely through the liver parenchyma, appearing rapidly in the bile, from which it may be recovered and identified. Although the dye disappears rapidly from the blood stream in the normal experimental animal (in from eight to twelve minutes in the dog), it continues to appear in the bile for several hours after the intravenous injection. The same conditions have been found by Rowntree to occur following the injection of phenoltetrachlorphthalein. On the other hand, the disappearance of the dye from the blood stream is very definitely delayed by a diffuse liver injury, such as that produced by chloroform, phosphorus or other chemical poisons. The delay also occurs with occlusion of the common bile duct, which produces an obstructive jaundice. From the work of Counseller and McIndoe,[3] it is possible that this delay is also due directly to necrosis of liver cells which, as these authors have shown, follows complete obstruction of the bile ducts. The rapid disappearance of the dye from the blood, following its injection into the circulation under normal conditions and its retention under abnormal conditions, is the basis of the test under discussion.

It was necessary first to establish the rate of disappearance of the dye from the circulation in normal individuals. The normal average thus obtained from about 300 cases, without demonstrable liver disease, shows that when 100 mg. of the dye is injected into the circulation, only from 42 to 52.5 per cent remains in circulation at the end of eight minutes. At the end of sixteen minutes, the amount of dye retained in the normal individual is between 23 and 26 per cent. In severe liver injury, as in an advanced cirrhosis or in complete obstruction, there may not be an appreciable change in the concentration of the dye in the blood throughout the entire sixteen minutes, while with less extensive liver injuries, corresponding percentages of retention may obtain.

It is well known that the functional reserve of the liver is very great, and it follows from this that slight changes in function or small alterations in structure within the liver cannot be recognized by any test of liver function that has yet been devised. But diffuse pathologic processes in the liver, such as cirrhosis, or extensive infectious processes within the liver, as well as cloudy swelling or parenchymatous degeneration due to processes without the liver, can be very readily detected, and the extent to which the liver cells have been harmed can be determined with considerable accuracy.

One of the objections to the test as originally described was the complexity of the mathematical calculations used to express the results of the test on a percentage function basis. With increased clinical application of the test, certain changes were found advisable, and the technic herein described has met the requirements of simplicity during the last two years.

TECHNIC

Injection.—A vein in the cubital fossa is selected, and 10 cc. of a 1 per cent solution of rose bengal in physiologic sodium chloride solution is injected, and the needle washed through slowly with from 5 to 10 cc. of salt solution, which is held ready in a fresh syringe. The needle is left in the vein, and at exactly two minutes after the injection of the dye a sample of blood (10 cc.) is withdrawn from the needle into a clean syringe and discharged into a centrifuge tube containing a few crystals of potassium oxalate. The tube is carefully inverted two or three times. The needle is again washed by slowly injecting from 5 to 10 cc. of the salt solution, which maneuver prevents the clotting of blood in the needle. At eight and sixteen minutes, respectively, from the time of injection, samples of blood are withdrawn and collected in an identical manner. The needle is then withdrawn from the vein in the arm. It is our practice to advise the patient that the appearance of the dye in the stools will impart to them a distinct red color, since the unexpected appearance of the red stools may cause considerable alarm.

As soon as possible after collection, the blood samples are centrifugalized at a speed of 2,000 revolutions per minute for thirty minutes.

We have found it convenient to use 10 cc. record syringes and number 16 gage record needles. Rough handling of the blood samples is apt to cause some hemolysis of the red cells and to interfere with the colorimetric readings.

Colorimetric Analysis.—Five cubic centimeters of the plasma of each of the samples is separately mixed with 10 cc. of physiologic sodium chloride solution. The diluted plasma of the two minute sample is placed in the wedge of the Hellige colorimeter. This is used as the standard against which the eight and sixteen minute diluted samples are read.

Since the two minute sample represents the highest concentration of the dye in any individual, following the injection of a fixed amount of the dye into the circulation, it may be regarded as 100 per cent retention, and the colorimetric readings obtained by comparing the eight minute and sixteen minute specimens with it represent direct percentages of dye retained. Before making colorimetric readings, it is necessary to standardize the Hellige colorimeter used and to correct for any inaccuracies present. The colorimeter is standardized by comparing one sample of plasma against itself; the reading should be 100.

The colorimetric readings thus obtained indicate the ratio between the first or control sample and the subsequent samples. This obviously indicates the speed with which the dye leaves the circulation.

While we have regarded the two minute sample as representing the highest concentration of the dye in an individual at any one time, it is probable that some of the dye is removed from the circulation before the collection of the two minute sample; but this is not of great practical importance if care is taken to withdraw the blood at exactly two minutes. Furthermore, we are not as much concerned with the actual quantity of dye in the circulation as with the ratio of the percentage of dye in circulation at two distinct intervals of time, which in reality is its rate of disappearance. For this reason it is not essential that the solution of dye injected be exactly a 1 per cent solution nor that the dose be exactly 10 cc. Although considerable latitude may be taken in regard to the amount of dye injected, it would be advisable to inject approximately 100 mg. in the average sized adult. The dose may be varied according to the size of the patient, for some endeavor should be made to keep the initial concentration of the dye approximately the same. We have varied the dosage from 3 cc. of a 1 per cent solution in children to 15 cc. in large adults.

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[3] Counseller and McIndoe, quoted by Walters, Waltman: Physiologic Considerations in the Treatment of Obstructive Jaundice, J. A. M. A. 87:2113 (Dec. 25) 1926.

In normal individuals, the eight minute sample is usually 50 per cent, varying from 40 to 60 per cent, and the sixteen minute sample varying from 23 to 30 per cent. These percentages represent the amount of dye retained in the circulation.

The technic described differs quite markedly from our original technic and offers the advantages of simplicity and accuracy. We have abandoned the artificial standard, made up by adding a known quantity of dye to the normal plasma of each individual, and have substituted the two minute sample as the standard. In order to determine whether there would be any essential difference in the results obtained, sixty-five patients were studied and both methods were used for comparison. It was found that invariably the color matches with the new method were far superior to those when an artificial standard was used. This, of course, lends more accuracy to the results of the test. A protocol of an average case thus compared is given in table 1. In this patient (J. C.) with a diagnosis of chancroid, 10 cc. of the dye was injected, May 6, 1926.

Table 1.—*Comparison of Color Match with Old and New Methods*

New Method (Two Minute Sample as Standard)	Color Match	Old Method (Artificial Standard)	Color Match
2 minutes = 100%		2 minutes 62 = 100%	Excellent
8 minutes = 50%	Excellent	8 minutes 34 = 51%	Good
16 minutes = 27%	Excellent	16 minutes 13 = 21%	Fair

The other essential changes in the technic have been the elimination of the four minute sample, which does not give information of value, and the prolongation of the duration of the test from eight minutes to sixteen minutes. This increased length of time of observation lends more accuracy to the test and has the advantage of giving more information when the eight minute reading is at the borderline between normal and abnormal, as for example, in a case of metastatic carcinoma of the liver, in which the results were as follows: Two minutes, 100 per cent; eight minutes, 64 per cent (borderline); sixteen minutes, 52 per cent (definitely abnormal).

The sixteen minute specimen may be obtained by leaving the needle in the vein the entire time or a fresh venipuncture can be made to obtain the sample.

CLINICAL APPLICATION

Our experience with the rose bengal test for liver function during the last four years includes its application in more than 500 patients, many of these having definite liver disease. It might be well to review briefly our observations up to the present time.

Normal persons absorb rose bengal through the liver from the blood stream very rapidly so that at the end of sixteen minutes only a trace remains in the blood plasma; that is, rarely more than 25 per cent of the amount injected.

In chronic cholecystitis the elimination is usually within normal limits, and the test is not an aid in the diagnosis of the condition.

In cases of obstructive jaundice, catarrhal jaundice and arsphenamine icterus, the delay in the elimination of the dye is always very definite, being greatest in obstructive jaundice. The test is a valuable aid in detecting these conditions and in following their clinical course. Before the jaundice begins to clear clinically, the improvement in liver activity can be demonstrated by its increased ability to eliminate rose bengal. Following operations for the relief of obstruction of the common duct, the liver function improves markedly. The test may be used as an aid in determining the patency of a cholecystoduodenostomy, as the dye can be readily identified in the duodenal contents. It has proved very valuable in following the course of an arsphenamine hepatitis.

In cirrhosis of the liver, the impairment of liver function is in direct relation to the amount of scarring in the liver and to the encroachment on the functional reserve of the liver. An advanced case of cirrhosis always shows a marked delay in the excretion of rose bengal.

The test is of particular value in the differential diagnosis when ascites is the outstanding symptom. In cardiac failure, in tuberculous peritonitis and in carcinomatosis of the peritoneum, little change from the normal liver function has been noted, while on the other hand, when cirrhosis of the liver is present, there is a very marked impairment of liver function.

In metastatic malignancy of the liver, the conditions are variable and seem to depend on the amount of liver tissue which can function. Discrete scattered metastatic nodules in the liver do not interfere with its ability to eliminate the dye, but diffuse replacement of the liver tissue by carcinoma very definitely causes a retention of the dye in the blood stream.

Chronic passive congestion of the liver does not seem to prevent the absorption of rose bengal, and the curves are within normal limits.

Observations in patients in the various stages of syphilis have proved interesting, especially in those with a very florid type of early generalized infection. In a small percentage of these a definite delay in the excretion of the dye has been noted, and probably indicates the presence of an acute syphilitic hepatitis in spite of the clinical silence of the liver. Long continued treatment with arsphenamine and mercury does not disturb the liver activity. Arsphenamine dermatitis unaccompanied by icterus shows elimination of rose bengal within normal limits.

Table 2.—*Severe Infections Within the Liver*

Case	2 Minutes	8 Minutes	16 Minutes	Clinical Notes
162 L. H.	100%	89%	......	White man, aged 32, acutely ill; high temperature; slight icterus; died a few hours after test; autopsy revealed very extensive pyophlebitis of the liver, with multiple liver abscesses
189 A. W.	100%	81%	......	Black woman, aged 22, very septic, high temperature, slight icterus; tenderness over liver; died eleven days after test; autopsy revealed cholangeitis with multiple liver abscesses
304 O. S.	100%	65.5%	57.0%	White man, aged 27, quite ill; moderate icterus; high temperature; diagnosis, hepatitis following appendical abscess; recovered
207 T. G.	100%	73%	53%	Negro man, aged 35; bullet wound in region of liver followed by moderate jaundice; septic fever; recovered

In general, it may be seen that the rose bengal test for liver function gives results in direct proportion to the clinical and pathologic data noted in regard to the liver. The process that involves the greatest number of liver cells should show the greatest inability to excrete rose bengal from the blood stream. Delprat has shown experimentally that when a large number of liver cells in the dog are destroyed by chloroform, rose bengal is retained in high concentrations in the blood stream. Clinically, acute yellow atrophy of the liver is analogous to this condition but we have not had such a case in which to apply the test. However, we have encountered a series of cases in which there has been a very extensive involvement of liver parenchyma by an infectious process. Table 2 shows the data obtained in these cases.

The observations in this series of cases are of great interest. It will be noted that with the patients having extreme pathologic processes within the liver, the dye was retained in the blood stream in very high concentrations. We were able in two of the cases to examine the liver pathologically and observed a very severe infectious process. The two patients who eventually recovered showed less impairment of liver function. The impairment of liver function in these cases was not in proportion to the amount of jaundice present. There was only slight icterus in the patients who succumbed to their infection. The test was of very definite value in noting the extent of liver injury present.

Table 3.—*Nephritic Toxemia of Pregnancy*

Case	2 Minutes	8 Minutes	16 Minutes	Clinical Notes
239	100%	50%	....	J. W., negress, eight months pregnant (?); edema of lower extremities; one convulsion; albumin in urine, ++++; blood pressure, 160/110; recovered; no icterus
241	100%	58%	31%	C C, negress, at term; numerous convulsions; albumin, ++++; blood pressure, 185/110; delivered spontaneously; recovered; no icterus
301	100%	52%	....	L B, negress, seven months pregnant; many convulsions; no icterus; albumin, ++++; casts, ++++; blood pressure, 180/100; delivered spontaneously; recovered

Table 4.—*Tuberculous Peritonitis*

Case	2 Minutes	8 Minutes	Clinical Notes
165	100%	61%	C S, a white woman, aged 32; ascites; slight fever; slight icterus; at operation, 4,000 cc of bile tinged clear fluid; peritoneum thickened and congested; biopsy, tuberculous infiltration of the peritoneum

TOXEMIAS OF PREGNANCY

Three cases of toxemia were encountered, all of which were similar clinically, presenting large amounts of albumin in the urine with casts, edema of the extremities, high blood pressure, convulsions and no jaundice, and in which there was recovery after delivery. A clinical diagnosis of nephritic toxemia of pregnancy was made. Examination of table 3 shows that all of these were cases of definite eclampsia without icterus and probably nephritic toxemia. There was no retention of rose bengal in any of them. Recovery occurred in all three cases.

Table 5.—*Cirrhosis of the Liver*

Case	2 Minutes	8 Minutes	16 Minutes	Clinical Notes
309 L B	100%	64%	41%	A white woman, aged 30, with ascites, large spleen; hepar lobatum; Wassermann reaction, ++++; at operation, liver lobulated; functioning liver tissue not particularly decreased
321 J C	100%	78%	58%	Alcoholic cirrhosis; marked ascites
D 2 J S	100%	82%	....	Marked cirrhosis; repeated tappings; Wassermann reaction, ++++
D 34 S	100%	84%	76%	Very marked ascites; alcoholic cirrhosis

TUBERCULOUS PERITONITIS

One more case of tuberculous peritonitis is added to our previous reports. The presenting symptom was ascites and the diagnosis was made at operation. The data are given in table 4. The test gave results within normal limits.

CIRRHOSIS OF THE LIVER

Four cases as shown in table 5 are added to the group of cases of cirrhosis of the liver. The results in this group of cases are identical with those in cirrhosis of the liver as previously reported.

Table 6.—*Malignant Condition with Obstruction of the Bile Ducts*

Case	2 Minutes	8 Minutes	Clinical Notes
76 W P	100%	68.1%	Extensive carcinoma of head of the pancreas; obstruction of the bile ducts relieved by cholecystoduodenostomy two months previous; died three months later
109 M B.	100%	81%	Marked obstructive jaundice secondary to carcinoma of head of the pancreas; died six weeks later; no autopsy

Two cases of a malignant condition causing obstruction of the bile passages are presented in table 6, one with the obstruction relieved by cholecystoduodenostomy and the other without surgical intervention. It can be seen that the patient operated on had a much better liver function than the one with complete obstruction.

The two cases summarized in table 7 illustrate how variable the results may be in metastatic malignancy of the liver, the first case showing a very good elimination of the dye while the second showed a very definite delay in the excretion of rose bengal.

Table 7.—*Metastatic Malignancy of the Liver*

Case	2 Minutes	8 Minutes	16 Minutes	Clinical Notes
271 F K	100%	35%	10%	Very much enlarged liver, which appeared four months after the removal of a melanoma of the choroid
300 A T.	100%	64%	52%	Very large nodular liver with slight icterus; marked loss of weight; operation showed extensive metastatic carcinoma in liver

Catarrhal jaundice causes a very definite delay in the elimination of rose bengal from the blood stream. As the clinical condition improves, the liver function as denoted by the test improves in almost direct proportion.

Table 8.—*Catarrhal Jaundice*

Case	2 Minutes	8 Minutes	16 Minutes	Clinical Notes
288 (1) T E. (2) (3)	100% 100% 100%	73% 60% 53%	51% 27% 18%	(1) Moderate icterus with high fever, septic type; very little jaundice left; (2) temperature subsiding; (3) about well
330 L M	100%	....	60%	Rather deep jaundice; pregnant six months; feels fairly well
156 P. H.	100%	51%	....	Slight icterus for one day; normal at time of test

SUMMARY

Changes in the technic of the rose bengal liver function test, as here described, greatly simplify the procedure and give more accurate information. The simplification of the technic of the test makes it available to all clinicians.

A review of the results of tests in certain pathologic states of the liver is given.

CONCLUSIONS

1. The results of the rose bengal liver function test correspond closely to the extent of the pathologic process within the liver and closely parallel the clinical observations.
2. Acute infections of the liver cause a marked impairment of liver function.
3. Nephritic toxemias of pregnancy do not cause delay in the elimination of rose bengal from the blood stream.
4. Continued application of the test confirms previous observations as to its value as an aid in diagnosis and in estimating the prognosis of certain diseases of the liver.

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THE RADICULAR SYNDROME[*]

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Entire systems of commercialized pseudosciences have been constructed around the radicular syndrome. This is due to two main factors: (1) the tendency of the regular practitioner to consider mild cases functional and treat severe ones as neuritis or lumbago, and (2) the ease with which the pain is frequently relieved temporarily at least by treatment which trained technicians can give and which it is considered beneath the dignity of the physician to administer personally.

This syndrome arises from any interference with the spinal nerve roots, i. e., that portion between the spinal cord and the fusion of the roots to form peripheral nerves. The roots are within the spinal canal and largely within the dura. They are bathed in cerebrospinal fluid and are consequently influenced by changes in spinal fluid pressure as well as by meningeal disease. As the roots merge they pass through the intervertebral foramina. Detailed description is not attempted here.

Involvement of the roots themselves has been called radiculitis, and of the fused portion which passes through the foramina, funiculitis, or neurodocitis. Williams[1] states that one cannot tell clinically which portion of the root is affected. There is a general tendency to speak of the radicular syndrome rather than radiculitis, as the symptoms may be due to any form of mechanical interference as well as to inflammation. In any event, the distribution of the lesion in the skin or muscles is a root distribution and not that of peripheral nerves.

My purpose in this communication is to call attention to the frequency of the syndrome, the variety of conditions giving rise to it, and to offer a few contributions to its symptomatology and treatment.

The scarcity of the literature on the radicular syndrome is striking. Few articles have appeared in the last decade and the subject is omitted from several important textbooks on nervous diseases. Mayer[2] has given a scholarly account of it and Williams[1] has presented an excellent differential diagnosis between radiculitis and neuritis. Except for giving sedatives, the treatment is mostly by means of physical therapy and has been well covered by Pope,[3] who gives a complete account. Williams[1] expressed the belief that spinal stretching might be of benefit.

Ten cases selected from a large number are presented to illustrate certain points. Herpes zoster and syphilis are common causes of radicular pain, and such cases have therefore been excluded.

REPORT OF CASES

Case 1.—I. L., a man, aged 65, an executive, complained of numbness and pain of six weeks' duration in the left arm, forearm and hand. Ten years before he had had a similar attack with spontaneous remission.

Examination showed fibrillary twitching in the muscles of the entire arm. There was no tenderness in the painful area. The Wassermann test on the blood, and Wassermann, cell count, colloidal gold and globulin tests on the spinal fluid were all negative. There were no signs in the lower extremities to suggest an upper motor neuron lesion. Spinal cord tumor, syringomyelia, amyotrophic lateral sclerosis, progressive spinal muscular atrophy and arthritis were considered.

It was discovered that if the patient lay on the right side resting his head on three pillows the pain was provoked. Resting on the right side without any pillow relieved the pain. This led to an examination of the cervical spine and it was found that flexion to the left produced the pain, flexion to the right relieving it. A roentgenogram revealed a high-grade ostearthritis. The dynamometer test showed left 10, right 118.

Massage, passive spinal movements, and hot and cold percussion douches were used. In three weeks twitching ceased; the pain diminished; strength of the muscles gradually returned, so that the left hand showed (tests every few days) 18, 25, 28, 36, 48, 52, 58, and finally after one month 95 on the dynamometer. Pain then ceased entirely and did not return.

Case 2.—F. O. B., a white man, aged 30, a farmer, complained of shrinking and weakness of the muscles of the right forearm and hand, and also of a scalding pain occasionally in the same area, all of one year's duration.

Examination confirmed the statement of atrophy but showed that the dorsal interossei and the adductors of the thumb (eighth cervical, first dorsal) were most affected and there was no tenderness. There was no evidence in the lower extremities of any upper motor neuron lesion.

A diagnosis of radicular irritation was made, etiology not found. The patient was instructed to have massage and percussion douches to the spine as well as massage of the affected muscles. In two months he returned; there was definite regeneration of the muscles but no pain.

Case 3.—W. F. D., a white man, aged 50, a conductor who had been injured in a railroad accident twelve years before, complained of pain in the right hip joint, at times radiating down the distribution of the right sciatic nerve. There was very little pain when reclining, but the patient was unable to sit or stand because of the agony produced.

Six months before, when the symptoms began, he paid little attention to them. After three weeks he was forced to remain at home. He went to Hot Springs, where he spent a month. After returning home he remained quiet a month and then had chiropractic treatments daily for another month. This seemed to relieve him at first, but he soon developed so much pain that he was totally unable to work. There was no tenderness in the hip.

Examination confirmed the patient's statements. Diagnoses considered were malignancy of the prostate with metastasis, disease of hip joint, and a radicular irritation with referred pain. A roentgenogram of the lower spine showed an old fracture of the fifth lumbar and first sacral vertebrae, with collapse of the former. Strangely, the symptoms referred to the fourth lumbar segment, but this was probably because pressure was greatest against that root. The patient was hospitalized for treatment in a cast.

Case 4.—J. A. M., a white man, aged 45, an executive, who twenty-five years before had sustained a comminuted fracture of the left elbow in a football game, complained of a severe scalding pain in the dorsum of the left arm and forearm for a period of seven years. Physicians consulted had invariably ascribed the pain to the fractured elbow.

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[*] From the Battle Creek Sanitarium Clinic.

[1] Williams, T. A.: Differential Diagnosis of Radiculitis and Neuritis, Arch. Diagn. **14**: 140-149 (Jan.) 1922.

[2] Mayer, E. E.: Radiculitis: Its Diagnosis and Interpretation, J. A. M. A. **71**: 353-358 (Aug. 3) 1918.

[3] Pope, Curran: The Radicular Syndrome, Arch. Physical Therapy **7**: 584-600 (Oct.) 1926.

Questioning revealed that he had taken some strenuous chiropractic treatment one year prior to the onset of symptoms.

Six weeks before his visit here the patient had received a severe jar to the left arm in attempting to hold an automobile which was starting down a hill. This gave him complete relief from his symptoms for five weeks, so that he felt like a new man. At the end of the five weeks he strained at a garage door which was caught, and immediately all his old symptoms returned much aggravated. He would lie for hours on the floor at night crying with pain, and he could not sleep.

Examination did not demonstrate any tenderness whatever in the arm but showed almost complete atrophy of the biceps and triceps, with a little atrophy of the muscles of the forearm. There were fibrillary twitchings and marked weakness of the arm muscles, as well as spasm of the muscles of the neck. Pressing the head to the right relieved the pain, to the left produced it, but this the patient had never discovered.

As the muscles involved are innervated not by a single peripheral nerve but by the fifth, sixth and seventh cervical roots, a roentgenogram of this region was ordered. This disclosed an old fracture of the fifth and sixth cervical vertebrae, with partial collapse of the bodies on the left side. A marked scoliosis was consequently present. There was also considerable exostosis about the area and a compensatory scoliosis in the dorsal region.

The patient was given massage, hot and cold percussion douches, and corrective manipulations to overcome the scoliosis, and was then fitted with a collar flanged to shoulder pieces. A brachial plexus neuritis developed under the treatment and this was treated in turn. After five weeks the pain disappeared entirely and had not returned five months later. He wears the collar twelve hours a day.

Case 5.—Miss A. M. S., aged 39, complained of symptoms quite characteristic of duodenal ulcer. She also had badly infected tonsils and a chronic multiple arthritis. On medical treatment for the ulcer, all symptoms of this disappeared. Her tonsils were then removed, resulting in a general flare-up of the arthritis. After a few weeks this subsided but the patient suddenly developed attacks of severe pain over McBurney's point. This was followed by a slight exacerbation of fever and by marked tenderness to camel hair touch and to pressure over the same areas. The patient was watched for developments, but the leukocyte count did not rise above 11,100. Other tender points developed, and when a week had gone by and the symptoms were stationary, I saw her. The areas involved when first seen were, right side, third dorsal and tenth dorsal to first lumbar, inclusive; left side, fourth dorsal, seventh dorsal, eleventh dorsal and first sacral, but the symptoms would shift to neighboring segments at times. Improvement has been slow and exacerbations occur, but the patient is recovering.

Case 6.—R. F. W., aged 46, a physician, suffered from cholecystitis. At operation the infected gallbladder was removed and by request an appendicostomy was done. The appendix was loosened accidentally after a few days, causing infection which lasted for several weeks.

Shortly after the infection cleared the patient was seized with severe stabbing pain in the right chest both anteriorly and posteriorly at the level of the spine of the scapula. Erect posture greatly aggravated the pain. Diagnosis was deferred until study of the chest was made. The area involved conformed to the distribution of the third dorsal segment, with exception of the axillary distribution. This developed on the third day and a diagnosis of radiculitis was made. Muscle spasm severe enough to prevent respiration occurred in the thoracic muscles. There was intense hyperesthesia in the segment involved. The patient was kept quiet and was given diathermy, fomentations, radiant heat, methenamine and frequently heroin to control the pain. It persisted for six months and gradually disappeared. But even after this time, much exertion or exposure caused exacerbation of symptoms.

Case 7.—R. A., boy, at the age of 14 was taken with attacks of pain in the region supplied by the fourth to the seventh dorsal segments on the left side. The pain completely incapacitated him for a day at a time. There was constant exquisite hyperesthesia to light touch, even clothing causing severe pain. Bouts of pain with continuous hyperesthesia continued for four years, when the sensory roots in the segments named were cut by a neurologic surgeon. The pain in the original four segments was replaced by total anesthesia, but soon recurred in the segment immediately above. This demonstrates the tendency of the infection to spread to the neighboring roots in a person predisposed.

Case 8.—Miss J. G., aged 25, fell off a horse at the age of 16. She has since suffered from soreness and lameness of the lumbar spine, with an area of hypesthesia and numbness on the left thigh. This area, when mapped out by a camel's hair brush, corresponded anatomically to that of the second lumbar segment. The lameness of the back persists—she is hardly able to straighten her spine at times—but the stereogram does not reveal anything abnormal. The patient has so far not taken her trouble seriously enough to follow treatment.

Case 9.—C. H. D., a man, aged 53, otherwise well, began to have pain nine months previously in the left arm, forearm and hand. This was of a dull, aching character, with sharp shooting pains interspersed. He slept poorly, was frequently awakened at night, and had not obtained relief at the hands of his physicians.

Physical examination showed considerable tenderness along the spinal column from the first dorsal to the third dorsal, especially on the left, but no tenderness along the arm at site of pain. The left arm and hand were weak and the deep reflexes in the lower extremities greatly increased. Pressure along the tender part of the spine produced tingling in the left hand. There was absence of paralysis of any kind and of trophic disturbances.

A diagnosis of spinal cord tumor was made and the patient referred to Dr. Elsberg of New York, who removed a chondroma from the posterior surface of the body of the seventh cervical vertebra. This was markedly compressing the seventh cervical root. The patient made a complete recovery.

Case 10.—Mrs. I. T., aged 36, was referred to a surgeon for perineoplasty, which was done under lumbar anesthesia. When this began to wear off the patient complained of severe pain in the tip of the coccyx and in the sacral region. This continued unabated for two weeks and was relieved temporarily by heat but not in any other way except by opiates. With the pain came a saddle shaped area of total anesthesia in the perineum and buttocks, and rectal and vesical insensibility, and the patient became involuntary and incontinent.

When seen two weeks after operation the foregoing was confirmed but there was in addition hypesthesia in the first sacral and second sacral areas on the left and all lumbar segments on the right. The lumbar segments escaped on the left, while the first and second sacral segments escaped on the right. The pain was greatly increased by raising the trunk, straining, coughing or sneezing. A diagnosis of a cauda equina lesion was made — probably hemorrhagic. Improvement has been steady but slow. At this writing, five weeks from the onset, there is marked sensitiveness in the area formerly totally anesthetic. The other segments have returned to function but the patient walks clumsily.

COMMENT

It will be seen that while syphilis is the cause *par excellence* and herpes zoster is common, there are many other fairly common causes. Among these trauma ranks high, and inflammation following the removal of a focus of infection at times causes the radicular syndrome. In one case of this series (case 4) the fracture was almost certainly due to "adjustments" and in case 3 an old fracture was rebroken in the same way.

Of symptoms worthy of note, the influence of change of spinal posture is striking. When the symptoms affect the upper extremities, movements of the neck will frequently cause or relieve the pain according to the direction of motion. The erect posture is often productive of pain when the horizontal posture is well tolerated.

Pain without accompanying tenderness to pressure is also highly characteristic. Lack of tenderness in the affected area is almost a constant finding in the radicular syndrome. There is a group of cases in which intense hyperesthesia to light touch is striking. It is frequently so great that not even the weight of clothing is borne. This may give the impression that there is tenderness, but in these cases deep pressure causes no more pain than light touch and the presence of pain without deep tenderness still obtains.

Other symptoms characteristic in inflammatory cases are: (1) the spread of the symptoms to other segments and disappearance of them but always with retention of the radicular distribution; (2) the onset weeks after removal of a focus of infection, and (3) long duration of the symptoms (months) after removal of the cause.

Atrophy occurs in radicular pressure and hence is not diagnostic of neuritis. This was one of the most striking symptoms in cases 2 and 4. When muscles are atrophic, weakness is of course noticeable.

A few observations not previously described should be recorded. There is in the presence of radicular pain a peculiar affective state which at first is puzzling—that of quiet, patient suffering. The patients do not writhe or double up or otherwise assume postures as they would do with acute abdominal pain, but lie perfectly quiet, weeping softly. This may easily lead one to suspect malingering. The reason is that the patients do not know how to react to the situation. The pain is felt at the periphery, not at the source; and as hardly anything applied to the periphery—posture, heat, massage—affects the pain, and as motion aggravates it, the patient responds by doing the only thing he can do—remaining perfectly quiet. He usually dares not even cough or sneeze.

Therapeutics will be discussed briefly. Heat of all kinds is gratefully received—fomentations, diathermy, radiant heat—but relief is temporary. Percussion douches, with temperature changing several times from 110 to 50 F., played up and down the spine, help establish permanent cure by improving the spinal circulation. Carefully supervised massage and manipulations designed to correct the scolioses so often present will frequently relieve the symptoms and are of definite value in producing a cure in traumatic cases. Such measures are never used in those of inflammatory origin. Spinal stretching carefully watched will often relieve root pains even of inflammatory origin, tabetic pains included. In inflammatory conditions this is obviously not a cure but does tend to allow more room for the thickened and inflamed meninges. These measures should be exhausted before opiates are resorted to because the condition may last for months and addiction to drugs is difficult to avoid.

SUMMARY

1. Besides the most common causes—syphilis and herpes zoster—frequent etiologic factors in the radicular syndrome are trauma, including "adjustments," removal of foci of infection, and arthritis In some cases no cause can be found.

2. Characteristic symptoms are pain without deep tenderness of radicular distribution, production or relief of symptoms by change of spinal posture, extreme hyperesthesia to light touch in the affected area, and an affective state of patient, silent suffering.

3. Atrophy of the muscles at times occurs in a radicular syndrome of the motor or the combined type.

4. The danger of drug addiction should be borne in mind constantly. Treatment by means of physical therapy directed toward correcting scolioses or faulty spinal postures is of definite value. Spinal stretching, carefully controlled, frequently gives relief for several hours and aids in recovery.

PHOSPHATURIA AS A LOCAL PHENOMENON

PRELIMINARY COMMUNICATION

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For many years phosphaturia and its explanation has been somewhat baffling to clinicians, and there has been a decided tendency to ascribe this phenomenon of milky urine due to phosphates to some kind of metabolic disturbance or diathesis. During the last eight or nine years I[1] have had the opportunity to make a number of observations on phosphaturic patients which suggest that this phenomenon is a peripheral and local one rather than due to any particular metabolic disturbance.

In the study of phosphatic urine, Lichwitz and others have called attention to the fact that a lipoid colloid separates from the urine as the urine becomes the milky urine of phosphaturia. On the other hand, if urines containing phosphates approach the alkaline reaction, dibasic calcium phosphate, tribasic calcium phosphate and dibasic magnesium phosphate precipitate out and produce a phosphaturic turbidity. As certain diets (vegetable, fruit and alkali) produce an excess of phosphates in the urine, either one of the foregoing factors —perhaps all three—may be responsible, in a measure, for the phosphaturia. My observations would suggest that this change takes place in the urinary tract on the mucosa of the urethra or ureters and perhaps similarly in the bladder, and that apparently the process is an instantaneous one.

The observations reported here will serve as evidence in favor of this peripheral or local character of the phenomenon.

Case 1 —A cystoscope was passed into the bladder of a man and clear, brilliant normal urine was obtained Both ureters were then catheterized with dry catheters (formaldehyde sterilization). The urine from the right kidney was normal, clear and brilliant, whereas, the urine from the left kidney was very milky as a result of phosphaturia It is evident that this case affords an instance of unilateral phosphaturia, and as the combined urine obtained from the bladder was brilliant and clear, it would appear that the passage of the ureteral catheter up the left ureter may have induced (or discovered) a phosphaturia by upsetting the solubility of the urine, probably in the sense of a colloidal or a reaction change to which reference has been made

Case 2 —A man voided typical milky urine containing phosphates and also carbonates. Immediate catheterization of the bladder with a dry silk catheter drew off several ounces of brilliant, clear normal urine It is evident that in this observation, the bulk of the urine was changed in its passage through the male urethra and that the process must have been a local one as the residue obtained within a few minutes was clear and brilliant.

Case 3 —A woman voided urine which was typically milky, and immediate catheterization of the bladder with a soft rubber (sterilized in water) catheter withdrew about 1 ounce of brilliant clear urine. It is evident that in this case the upset was effected in the short female urethra, which bears out the instantaneous character of the change that takes place in the urine.

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[1] Beer, Edwin Uric Acid and Uratic Stones in the Kidney, Surg. Gynec. Obst 43:436 (Oct) 1926, Analogies Between the Biliary Tract and Urinary Tract, Ann Surg 84:517 (Oct) 1926

COMMENT

Since these cases were observed a patient presented himself with typical phosphaturia. Immediate catheterization obtained from the bladder 2 ounces of slightly turbid urine, totally different from the voided specimen. When heated with acetic acid, the bladder specimen cleared up with the production of bubbles as the carbonates decomposed. In this case, the change toward phosphatic urine apparently took place in the passage through the urethra, whereas some turbidity due to carbonates had already been effected in the bladder or higher up.

In case 1, it might be thought that the catheter upset the colloidal system, or the reaction; but in cases 2 and 3, unless the explanation that the process is a local phenomenon is accepted, it will be necessary to conclude that the introduction of the catheter induced an opposite effect, i. e., a colloidal reversal or reversal of the reaction, which should take place in phosphatic urines outside the body by immersing in them a catheter or other foreign body. As such does not occur, it seems to me that we must conclude that there is a phosphaturia due to local urinary tract conditions in which local infections do not play a part. Further study will demonstrate whether this local phenomenon is present in only some or in all cases of phosphaturia.

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DIABETES MELLITUS AND CONCOMITANT LEUKEMIA*

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The simultaneous occurrence of diabetes mellitus and leukemia in the same person is quite unusual. In 1920, Fitz[1] reported a case and summarized two others already described in the literature. The first case was described by Rebitzer,[2] and occurred in a man, aged 56, who had had diabetes for six years. Four months before death, which occurred in diabetic coma, the patient began to complain of a sense of pressure under the ribs and an abdominal swelling. On examination, a greatly enlarged spleen was felt and the leukocyte count was 555,000. At necropsy the observations were characteristic of leukemia, but it cannot be stated from the report whether the leukemia was of the myelogenous or the lymphatic type. Grossly and microscopically, nothing abnormal was noted in the pancreas.

The second case, reported by Schwarz,[3] occurred in a boy, aged 13 years. In this instance the onset of the leukemia seems to have antedated the appearance of the diabetes, though this point is not certain. The patient had an enlarged spleen and a leukocyte count of 344,000. At necropsy, the lesions of miliary tuberculosis as well as those of myelogenous leukemia were demonstrated. Grossly, the pancreas was brownish. Microscopically, abnormalities were not noted.

Fitz'[1] patient was a woman, aged 40, who was known to have had diabetes of at least four months' duration. Two months after the diabetes was discovered, a mass was observed in the upper abdomen, and two months later, on admission to the hospital, there were noted a very large spleen, a secondary anemia, and a leukocyte count of 147,000. Most of the cells were of the myelogenous series. The diabetes was treated by diet and the leukemia by roentgen ray. The patient showed marked improvement, and was discharged after sixteen days in the hospital.

Since Fitz' report, we have been unable to find in the literature any other mention of diabetes mellitus complicated by leukemia. The apparent rarity of the condition seems to warrant the publication of the following case report:

REPORT OF CASE

M. G., a woman, aged 49, entered the hospital, Jan. 15, 1925, complaining of fulness of the epigastrium and loss of weight (31 pounds, or 14 Kg.) of one year's duration, and of excessive thirst during the two months previous to admission. The patient underwent a cholecystectomy two years before admission, at which time sugar was found in the routine examination of the urine. Since then she had attended a diabetic clinic, dieted, and was sugar free most of the time. She had also had a herniotomy, appendectomy and oophorectomy seven years previous to admission. The patient had been married twenty-eight years; she had five children living and well, and not any other pregnancies. Her mother had died of diabetes.

The patient was rather emaciated, with a skin of a marked brown, darker over the elbows and buttocks. This color had appeared gradually during the six months previous to admission. A history of antecedent arsenic or roentgen-ray therapy was not given. The thyroid was somewhat enlarged; there was scoliosis of the thoracic spine; the liver edge was felt three fingerbreadths below the costal margin, and the surface was firm and smooth. The spleen was quite firm and was palpable from the costal margin medially to the midline and downward into the left iliac fossa. A few axillary nodes were palpable. Other superficial lymphadenopathy was not demonstrable.

The history of diabetes, the presence of the large spleen and liver, and the brown skin suggested a diagnosis of bronze diabetes. However, biopsy was done a short time later, and hemosiderin could not be demonstrated in the section of skin examined. The color seemed to be due to the presence of an unusual amount of melanin. On admission, the leukocyte count was 18,000, with neutrophils, 70 per cent; small mononuclears, 6 per cent; large mononuclears, 14 per cent; myelocytes, 4 per cent; myeloblasts, 1 per cent, and unclassified cells, 5 per cent. There were a few nucleated reds. The red cell count was 3,072,000; hemoglobin was 90 per cent; the color index, 1.5; platelets, 125,000; coagulation time, seven minutes; bleeding time, twenty minutes; fragility was complete at 0.34, and partial at 0.46. The basal metabolism was 31 per cent above normal. Roentgenographic examination showed a calculus filling the right kidney pelvis. The Wassermann reaction was negative, but a month later was 2 + to the lipoid and syphilitic antigens. The patient had had a mildly positive Wassermann reaction two months previously and had received a few antisyphilitic treatments. Aside from these Wassermann tests, there was nothing to substantiate a diagnosis of syphilis.

On admission, the urine was sugar free and the blood sugar was 79 mg. per hundred cubic centimeters. On a general ward diet, sugar appeared in the urine and the blood sugar rose to 129 mg. The diabetes was treated by diet, the leukemia by roentgen-ray irradiation of the spleen; the patient left the hospital improved.

Three months later she was readmitted complaining of headache and tinnitus of two months' duration, and of severe pain in the abdomen and the tips of the fingers and toes of several days' duration. She had adhered to her diet, and the urine was sugar free. At this time the leukocyte count was

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* From the medical service of the Michael Reese Hospital.

1. Fitz, Reginald: Diabetes Mellitus and Myelogenous Leukemia, J. A. M. A. **75**: 1331 (Nov. 13) 1920.

Rebitzer, A.: Ein Fall von Leukämie und Diabetes, Prag. med. Wchnschr. **17**: 356, 1892.

3. Schwarz, E.: Ein Fall von Myelämie mit Diabetes mellitus und Miliartuberculose, Wien. med. Wchnschr. **55**: 414, 1905.

10,000, with neutrophils, 60 per cent; small mononuclears, 26 per cent; large mononuclears, 6 per cent; eosinophils, 1 per cent; myelocytes, 7 per cent. There were a few nucleated red cells. The red cell count was 2,430,000, with 50 per cent hemoglobin. The color index was 1.0. Transfusion was done; the patient improved and was discharged.

Two months later she developed a sore throat resulting in inability to take food. The extremities were swollen, and she could not move her arms. The leukocyte count was 11,000, with neutrophils, 40 per cent; small mononuclears, 33 per cent; large mononuclears, 10 per cent; eosinophils, 7 per cent, and myelocytes, 10 per cent. The red cell count was 1,310,000, hemoglobin, 25 per cent, and the color index, 0.9. The urine contained 24 Gm. of reducing substance in the first twenty-four hour specimen. The blood sugar was 358 mg. The urinary sugar disappeared under diet and insulin. The patient, however, gradually became more edematous, developed pneumonia, and died three weeks after admission.

At necropsy, terminal bronchopneumonia and edema of the lungs were present. There was red hyperplasia of the marrow of the humerus and the vertebrae. Calculi were found in the biliary duct and the right kidney, and fatty degeneration of the liver was noted, without increase of connective tissue. There was marked enlargement and myeloid changes of the retroperitoneal lymph nodes and spleen. Abnormal pigmentation of the liver, pancreas or spleen was not seen. The suprarenals were somewhat small but microscopically appeared normal. The pancreas grossly was quite firm and distinctly lobulated. Microscopically, there was some increase of connective tissue. Numerous islands of Langerhans were present and for the most part, though quite small, they appeared healthy. There were a few quite large islands with cells having large well preserved nuclei. Mitotic figures were not seen and evidence of leukemic infiltration was lacking.

COMMENT

It is interesting to note that of the four cases discussed above three came to necropsy, and in none of these did microscopic examination of the pancreas reveal evidence of leukemic infiltration. Therefore, the simultaneous occurrence of diabetes mellitus and leukemia in these cases, at least, cannot be explained on the basis of leukemic infiltration of the pancreas.

In the case here presented, the pathologic evidence of myelogenous leukemia in the spleen and retroperitoneal lymph nodes, together with the qualitative changes in the blood picture without any marked increase in the total leukocyte count, classified the condition as myelogenous leukemia of the aleukemic type. Another unusual feature of the case was the pigmentation of the skin, described above. While bronzing similar in appearance to this occurs in the so-called bronze diabetes, in which group the pathologic observations showed this case not to belong, such bronzing does not occur in the diabetes mellitus. In leukemia bronzing of the skin has been described by Hazen,[4] who mentions its occurrence in two cases of the chronic lymphatic type. Steinbrinck and Stukowski[5] described a case of chronic myelogenous leukemia and mentioned that the patient had a brown skin, but did not go into further detail regarding this feature of the case.

An explanation of the unusual pigmentation of our patient may be found in the theories of Féréol and Nieskowski[6] and of Paget and Fowler.[7] They believed that pigmentation associated with lymphadenopathy is due to disturbance of the sympathetic nervous system and through this of the suprarenals, by pressure of enlarged abdominal lymph nodes on the abdominal sympathetic chains and ganglions. Another and later theory is that of Peters,[8] who made the suggestion, based on work by Eppinger,[9] that an injured liver may be unable to perform its normal function of removing melanin from the circulation and may permit an excess of it to reach other body tissues, thus giving rise to excessive pigmentation.

Twenty-Ninth Street and Ellis Avenue.

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[4] Hazen, H. H.: Skin Changes in Leukemias and Allied Conditions, J. Cutan. Dis. **29**: 521, 1911.

[5] Steinbrinck, W., and Stukowski, J.: Ueber einen Fall von chronischer myeloischer Leukämie mit Hauterscheinungen bei einer Jugendlichen, Ztschr. f. klin. Med. **101**: 375, 1925.

[6] Féréol, M., and Nieskowski, M.: Adénie lymphatique, Gaz. d. hôp. **40**: 512, 1867.

[7] Paget, G. E., and Fowler, J. K.: Lymphadenosis with Brown Pigmentation of the Skin, Lancet **1**: 258, 1879.

[8] Peters, J. P.: Melanuria without Melanosarcoma, Arch. Int. Med. **32**: 709 (Nov.) 1923.

[9] Eppinger, H.: Melanurie, Biochem. Ztschr. **28**: 181, 1910.

THE INCIDENCE OF CANCER IN FILIPINOS [*]

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Hoffman,[1] as the result of a very extensive survey of the mortality statistics of cancer in all parts of the world, has drawn the conclusion that cancer is exceedingly rare in primitive races, and that it is a disease of civilized peoples and in a special sense is the result of present day conditions of life.

Table 1.—*Death Rate from Cancer According to Hoffman*

Population	Deaths from Cancer	Rate per 100,000
1,190,154......................	325	27.3

This conclusion differs radically from the statements of numerous observers among various Oriental races who have found malignant tumors to be fairly common. Thus Madden,[2] professor of surgery at the government school of medicine at Cairo, writes: "Malignant disease among tropical and semitropical peoples, even in the black races, is much more common than is generally believed, as figures prepared for the Cancer Research Committee show. With the Oriental and tropical precocity in development, malignant disease often appears at a very early age; epithelioma of the tongue for instance at the age of 10, and cancer of the breast at what may seem to us an absurdly early age."

Among the statistics quoted by Hoffman and on which his conclusion is based are those given in table 1 from a selected population in the Philippine Islands.

The presumption that the cause of death is accurately reported anywhere in the Philippine Islands is hardly justified, as the following quotation from an article published by Dr. Padua,[3] assistant director of the Philippine Health Service will show. "In a previous epidemiological investigation on dysentery in one province, it was ascertained that the cause of death of 55 per cent of the total was determined by municipal secretaries and sanitary inspectors, and of the remaining 45 per cent by qualified presidents of sanitary divisions and medical private practitioners. We cannot at present claim to be able to make a very accurate statistical study of the causes of death." As a considerable percentage of the Filipino population die without having been seen by a physician, it may be concluded that statistics based on death certificates afford very little indication of the actual prevalence of malignant tumors among Filipinos.

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[*] From the U. S. Army Board for Medical Research, Manila, P. I.

[1] Hoffman, F. L.: The Mortality of Cancer Throughout the World, Prudential Press, 1915; Causation of Cancer, J. Trop. Med. **27**: 176 (June 16) 1924.

[2] Byam, W., and Archibald, R. G.: Practice of Medicine in the Tropics, Oxford University Press, London, 1922, **3**: 2542.

[3] Padua, R. G.: The Need of Accurate Morbidity and Mortality Reports, J. Philippine Islands M. A. **5**: 301 (Oct.) 1925.

Probably the best reporting of deaths in the Philippine Islands is in the city of Manila. Table 2, taken from the annual reports of the Philippine Health Service, gives the death rate for cancer for the decade 1915-1924 for the resident Filipino population of the city of Manila. Nonresidents who might come to Manila because of cancer and foreigners are excluded.

From this table it is evident both that the cancer rate is very low as compared with rates in the United States, and that evidence of any increase in these rates during this decade is lacking.

In an effort to obtain some information with regard to the number of malignant tumors among Filipinos that escape diagnosis, the records of a series of 10,000 necropsies were examined. These necropsies were performed in the morgue of the Philippine Medical School between 1907 and 1923, inclusive, by the professor of pathology at the school, or one of the members of his staff. The majority were performed by Vernon L. Andrews, 1908-1913, and B. C. Crowell, 1913-1918.

Table 2.—*Philippine Health Service Statistics on Death Rate from Cancer in Manila*

Year	Population	Cases of Cancer	Rate per 100,000
1915	236,940	64	27.0
1916	236,940	49	20.9
1917	236,940	73	30.8
1918	236,940	81	34.1
1919	257,356	80	31.1
1920	263,386	65	24.7
1921	259,049	84	32.4
1922	273,497	88	32.2
1923	277,625	85	30.6
1924	281,753	91	32.2
		Average....	29.69

I am indebted for the privilege of consulting these records and for the publication of these statistics to Dr. Liborio Gomez, who has been professor of pathology from May, 1923, to the present.

These necropsies have been performed in all cases in which a postmortem examination is requested from the Philippine General Hospital, the San Lazaro Hospital, and other hospitals of Manila, as well as in cases of sudden and unexplained deaths occurring in the city of Manila.

In tabulating these cases, the necropsies on Americans, Europeans and Chinese have been excluded, since only the cancer rate in Filipinos is under consideration. Stillbirths also were excluded. These cases numbered 1,040, leaving 8,960 necropsies on Filipinos of all ages to be considered, of whom 5,810 were males and 3,150 females. There were thirty cases in which a tumor was found but in which the diagnosis of the tumor was indefinite. Only those cases in which the diagnosis of the tumor was definite have been included in these statistics. Therefore, although the diagnosis of cancer at necropsy is more accurate than a diagnosis during life, these figures do not give the total cancer rate among those Filipinos coming to necropsy.

The facts disclosed by this survey of 8,960 necropsies are shown in table 3.

That is to say, among these Filipinos coming to autopsy, 173 in 8,960, or 1,930 per hundred thousand, have cancer when they die, or 233 in 8,960, or 2,600 per hundred thousand, have some form of malignant tumor when they die. One out of every 38.4 of these persons coming to postmortem examination had some type of malignant tumor, in spite of the fact that these postmortem clinics contained an unusual number of cases of tuberculosis, cholera, dysentery, typhoid and beriberi, because those dying in Manila under suspicious circumstances from a sanitary point of view are sent for postmortem examination. Only 1,995 of the 8,960 patients were 40 years of age or over. Approximately 30 per cent of the carcinomas in Filipinos occur under the age of 40, which means that approximately one out of every sixteen of the 1,995 patients 40 years or over had carcinoma at the time of death. Twenty of the sixty sarcomas occurred in persons 40 years of age or over, so that approximately one out of every fourteen Filipinos of 40 years of age or over coming to necropsy had a malignant tumor. Since none of these necropsy cases were diagnosed as malignant disease during life, we may at least conclude that there are many more cases of cancer among Filipinos than are shown by the official death rates.

Table 3.—*Incidence of Tumor as Cause of Death in 8,960 Necropsies*

Diagnosis	Carcinoma	Sarcoma	Benign Tumors
Number	173	60	132

It may be contended that these necropsies contained an unusual number of cancer cases because of the inclusion of a large number of such cases from the Philippine General Hospital, where such patients possibly congregate. That this is not true is shown by the fact that the cases diagnosed during life at the Philippine General Hospital do not come to the postmortem table. In operable cases, operation is performed and the patients leave the hospital recovered. If they die later, their deaths are reported from the district where they live. Those that die in the hospital are reported as having died from cancer if the diagnosis is obvious. Thus, from March 6, 1915, to Dec. 31, 1921, there were 150 cases of cancer out of 7,545 males admitted to that hospital, a percentage of 1.98; and from Jan. 1, 1918, to Dec. 31, 1921, there were 233 cases of cancer out of 3,467 female admissions, a percentage of 6.1. That few of these cases were examined post mortem is shown not only by the total figures (383 cases of cancer admitted to the hospital between 1915 and 1921, while only 173 cases were found at necropsy, between 1907 and 1923), but also by the location of the carcinomas found during life as compared with the location of cancers found at necropsy.

Table 4.—*Location of Cancer in Cases from Philippine General Hospital*

Males	Per Cent	Females	Per Cent
Stomach and pylorus	15.33	Breast	26.3
Check	12.66	Uterus	25.1
Penis	12.00	Cheek	17.0
Neck	8.66	Neck	4.9
Tongue	6.00	Vagina	2.25
Lip	4.33	Stomach and pylorus	2.25
Total	58.98	*Total*	77.80

Thus, Guazon,[4] who reported this series of cases from the Philippine General Hospital, found the distribution of the majority of the cases to be as indicated in table 4.

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[4] Guazon, P. C.: A Study of Cancer Cases in the Philippine General Hospital, J. Philippine Islands M. A. **5:** 159 (June) 1925.

In the necropsy series there was not a single carcinoma of the tongue or lip, and only one of the breast. The actual distribution is given in table 5.

In addition there were two cases, of both the rectum and the intestine, one case from the suprarenal, penis, lung, bladder, mediastinum, breast and toe. The remaining four cases were generalized carcinoma in which the site of the primary tumor could not be identified.

The average death rate per thousand for resident Filipinos in Manila from 1915 to 1924 was 29.77, or 2,977 per hundred thousand. According to the necropsy statistics, 2.6 per cent had nondiagnosed cancer or other malignant tumor growths when they died. Not all of these people died as the result of cancer, though the majority did. But in accordance with the rules as to the classification of the causes of death, constitutional diseases should have preference over those known to be local diseases. Thus, if cancer and pneumonia coexist, the preference should be given to cancer. Since statistics in the United States are collected on this basis,[5] in order to obtain a correct cancer rate for Filipinos 2.6 per cent of 2,977, or 77.40, must be added to the average reported cancer rate of 29.60, making a cancer rate of 107 per hundred thousand of resident Filipinos in Manila. This computation seems not unfair when it is remembered that the necropsy statistics were quite numerous (8,960) and represented a cross section of the Filipino population of all ages between 1 month and 90 years and over.

TABLE 5.—*Location of Cancer in Cases Examined at Necropsy*

	Cases	Per Cent
Gallbladder and liver	67	38.7
Stomach and duodenum	23	13.3
Uterus	19	10.9
Neck	16	9.2
Head	6	3.4
Pharynx and esophagus	6	3.4
Pancreas	5	2.8
Retroperitoneal	4	2.3
Cheek	3	1.7
Larynx	3	1.7
Ovary	3	1.7
Prostate	3	1.7
Total	158	90.8

Taking these figures for what they are worth, they show a higher cancer rate for Filipinos than is now reported for Americans (86.8 for the registration area of the United States in 1922).

If vital statistics with regard to cancer are so inadequate among Filipinos in Manila, where there is a very good medical and sanitary service, it seems probable that similar statistics quoted from American Indians, from India and from China are of even less value. Oppenheim[6] found two cases of carcinoma among 100 routine necropsies on Chinese. At any rate, it is safe to conclude that Hoffman's thesis with regard to the rarity of cancer among primitive peoples is based on insufficient evidence.

Probably the reason cancer rates are low for primitive peoples is that we have very little accurate statistical information concerning their diseases. Certainly, the evidence is insufficient to serve as a basis for theories concerning the cause of cancer. Thus, it has been suggested that the dietary habits of Americans and certain European nations, particularly an overconsumption of meat and sugar, may have some influence on the susceptibility to cancer. The diet of the Filipino is mainly vegetable and consists largely of rice. If our belief that cancer is quite as common among Filipinos as among Americans is correct, it follows that diet probably has little to do with the causation of cancer. On the other hand, irritation acts on the Filipino just as it does on the white race in the production of cancer. The high percentage of cancer of the cheek is caused by the chewing of betel nut and buyo leaf mixed with lime. This habit is more frequent among the women than it is among the men, and the incidence of cancer of the cheek is proportionately higher among the women.

This study does not afford evidence that the incidence of cancer among Filipinos is increasing. There were ninety-two cases of cancer among the first 5,000 necropsies, from Aug. 11, 1907, to Aug. 31, 1916, and eighty-one cases of cancer among the last 5,000 cases, from Aug. 31, 1916, to July 22, 1923. These necropsy statistics also have a bearing on discussions as to whether the actual incidence of cancer in the United States and Europe is increasing. Although diagnosis is far more accurate in the United States than in the Philippines, it is not by any means perfect, and there must also be many cases in the United States that escape detection during life and that would be found at a postmortem. In 1902 it was shown in Berlin hospitals that 20 per cent of cancer cases demonstrated post mortem were not recognized during life. It is probable that the Berlin physicians were quite as skilful as others. If a study of postmortems in the United States should similarly indicate 20 per cent of undiagnosed cancer, the rate of 86.8 for the registration area in the United States for 1922 would be increased to 104.1, a rate practically identical with that calculated by this method for Filipinos. That this is a possibility is further indicated by the experience of the U. S. Census Bureau as quoted by Dr. Rush,[7] showing that in 1914 there was an admitted lack of precision of 14.2 per cent, and a possible error of 41.7 per cent in the diagnosis of cancer in death certificates. With such a lack of precision in diagnosis, how can we solemnly declare that there is a real increase in cancer? The recent paper by Schereschewsky[8] does not afford proof that the increase in cancer is real as he asserts, because after certain statistical assumptions he assigns only 30 per cent of the increase to improved diagnosis, while the possible error in the death certificates on which the whole rate is based is nearly 42 per cent.

CONCLUSIONS

1. The real cancer rate for Filipinos is not any lower than the cancer rate in the registration area of the United States, and the assumption that cancer is preeminently a disease of civilization is untenable.

2. Cancer rates in all countries may be expected to increase as diagnosis and reporting are improved until the statistics reflect the actual incidence of cancer.

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[5] Pearl: Medical Biometry and Statistics, Philadelphia, W. B. Saunders Company, 1923, p. 65.

[6] Oppenheim, F.: Ueber die Haufigkeit einzelner Befunde bei 100 in Shanghai ausgeführten Chinesen Sektionen, Tung-Chi Medizinische Monatschrift, 1925, number 2.

[7] Rush, J. E.: Cancer Statistics, J. A. M. A. 84: 1376 (May 2) 1925.

[8] Schereschewsky, J. W.: Cancer Mortality in the Ten Original Registration States, J. A. M. A. 85: 1175 (Oct. 17) 1925.

CLINICAL DATA AND PROGNOSIS IN CASES OF CHRONIC PYELONEPHRITIS *

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Of the various lesions affecting the urinary tract in the adult, chronic pyelonephritis furnishes the greatest problem to the urologist. In a discussion of this disease it should be recognized that the cases should be divided into several definite clinical groups. Acute and subacute forms of pyelonephritis should not be confused with chronic bilateral pyelonephritis, since they are self-limiting and often unilateral.

A common type of chronic urinary infection is characterized by recurring attacks of acute pyelonephritis accompanied by a febrile reaction, which subsides after several days, although frequency may persist for several weeks. When patients are examined in intervals between attacks they are usually free from any evidence of urinary infection, and cystoscopic examination and urine cultures may be negative. Such a negative phase may exist for months, to be followed by a recurrence in the acute form. Following removal of all foci of infection and after the development of a natural immunity, patients usually recover. There is another group of cases of chronic infection largely involving the bladder in which only a few pus cells or positive cultures may be obtained at intervals from the ureteral specimens. Such cases are also usually self-limiting, and are amenable to local treatment.

The type of pyelonephritis that we shall discuss here is present many years. It occurs in the adult, is usually bilateral, and resists all specific therapeutic measures so far advanced. In the Mayo Clinic during a period from Jan. 1, 1910, to Jan. 1, 1926, 2,040 patients suffering from chronic bilateral pyelonephritis have been observed. In order to determine the eventual course of the disease, and the results of the various methods of treatment, a certain group of 251 of these patients were studied continuously for a period of from ten to fifteen years.

CLINICAL DATA

Symptoms.—The symptoms of urinary frequency, persisting for a long time with variable pain referred to the lumbar area, and occasional attacks of acute renal infection, are common in cases of chronic pyelonephritis, and they do not, therefore, merit detailed discussion. In a few of the cases in the series a comparatively small number of pus cells persisted in the urine in the course of routine examination and there were no symptoms referable to the urinary tract. These patients did not show any change as a result of the usual methods of treatment. It may be inferred that they had a relatively high degree of immunity to the infecting organism. It is noteworthy that the longstanding urinary infection seldom affected the patient's general condition. Physical examination usually failed to disclose any lesion that might have resulted from the chronic urinary infection.

Cystoscopy.—Cystoscopic examination will usually disclose moderate infection in the bladder, but the character of the inflammation, the areas of ulceration, and the reduced capacity of the bladder are frequently similar to those found in cases of renal tuberculosis, and it may be difficult to differentiate the two diseases. Ureteral catheterization is usually uneventful, although there may be moderate obstruction to a catheter at or near the vesical portion of the ureter. The number of pus cells in the catheterized specimen varies considerably from day to day, from fifty to a hundred one day and only five or ten several days later. A reduction in the number of pus cells or their absence, unless observed repeatedly, is not of much value in determining the degree of improvement.

Roentgenography.—The primary roentgenogram in cases of chronic pyelonephritis is usually not of much clinical value. A stone-forming tendency, which is apparently secondary to the chronic renal infection, is, however, occasionally observed. There was a history of the passing of renal calculi or evidence of stone in the roentgenogram in twenty-eight cases. In most cases the stones were small and in several cases were passed spontaneously. Occasionally multiple minute calcareous areas are visible in the renal area, and on exploration have been found to be caused by particles of sandlike material. It was found necessary to operate for lithiasis apparently secondary to chronic pyelonephritis in twelve cases. The question occasionally arises whether it is advisable to attempt surgical removal of these small stones when they do not cause local symptoms, particularly if on continuous observation they do not increase in size. It is questionable whether their removal could materially influence the course of the pyelonephritis.

Urography.—The deformity of the outline of the pelvis and ureter in chronic pyelonephritis is usually typical, being characterized by marked dilatation in the ureter, with slight if any dilatation in the pelvis, and usually none in the calices. The typical ureter is dilated irregularly throughout and presents the appearance of multiple areas of constriction. In most instances, however, it would be impossible to ascribe the irregular dilatation to obstruction alone, but rather to the result of chronic inflammation and cicatrization of the ureteral wall. The greatest dilatation is usually observed in the upper third of the ureter and it frequently stops abruptly at the ureteropelvic juncture, leaving the pelvis and calices intact. It might be inferred that there is some anatomic factor in the nerve supply, or musculature, at the ureteropelvic juncture which is able to limit the dilatation to the ureter. With the ureteropelvic juncture dilated to the extent of the ureter below, the pelvis may be but slightly dilated and the calices normal. The pelvis and calices are seldom dilated as with intermittent hydronephrosis. Cicatricial changes are frequently observed in the calices with resulting reduction in size and irregularity in outline. Occasionally there is evidence of necrosis in the outline of the calices which may be confused with renal tuberculosis. Although dilatation in the ureter is largely the result of inflammatory changes in the walls of the ureter and pelvis, ureterectasis extending uniformly upward from the ureterovesical juncture may result from an area of constriction. Even though the catheter meets no obstruction, it is conceivable that the mucosa may have been so edematous at this point as temporarily to occlude the lumen of the ureter, and induce ureterectasis. Occasionally in advanced cases the ureter may be so greatly constricted as to be impassable to the ordinary ureteral catheter. In such cases the obstruction is usually at or near the wall of the bladder, and the ureter may be so tortuous that it is difficult to introduce even a filiform sound or the smallest catheter. The constricted area may sometimes involve the entire lower third of the ureter or more. If the cicatricial tissue is so dense that dilation is difficult, the advisability of cutting the intramural portion of the ureter might be considered (figs. 1, 2, 3 and 4).

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* From the Section on Urology, Mayo Clinic.

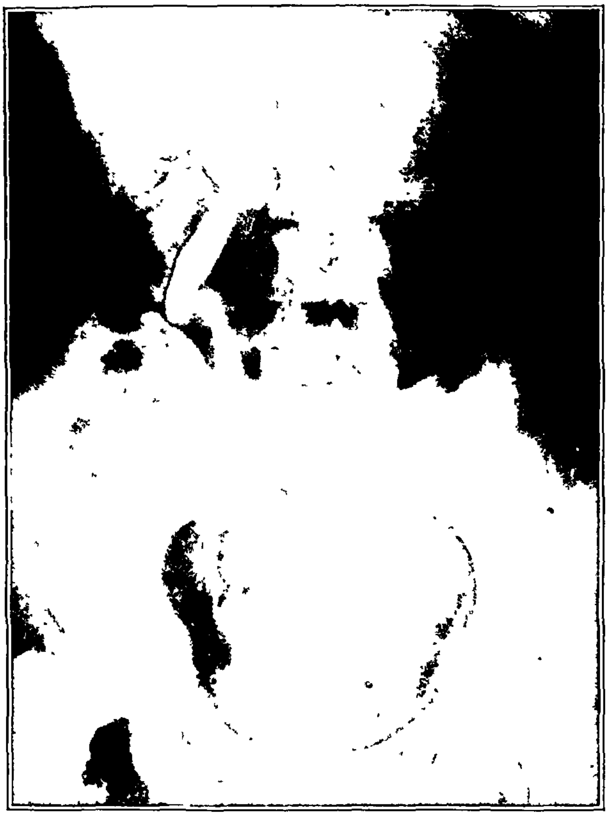
Fig. 1.—The irregular, tortuous outline of the ureter, with alternating areas of dilatation and constriction is frequently seen in cases of chronic pyelonephritis. The pelvis is not dilated and the calices appear contracted and cicatricial.

Gross Hematuria.—Gross hematuria accompanying chronic pyelonephritis usually originates in the areas of eroded, cicatricial mucosa or in granulomas in the renal pelvis or ureter. As a rule the bleeding is moderate, but it may become serious. Although it can be controlled by lavage of the pelvis with solutions of silver nitrate, nephrectomy may in rare instances be necessary. When gross hematuria has occurred, the urogram usually shows marked typical deformity of the pelvis and ureter as a result of the long-standing cicatricial changes. Filling defects in the pelvic outline caused by blood clots may be confused with those caused by epithelioma of the pelvis or ureter. In case of doubt it would be necessary to make the urogram in the interval when there is no bleeding.

Renal Function.—The renal function, as a rule, remains normal even after many years of infection. If there is reduction in function, it occurs either after the infection has existed for many years or as a sequel to some acute complication. Owing to the dilatation of the ureter, the excretion of the dye may be delayed and give an erroneous impression of function. A more accurate estimate of function can usually be made by means of retention tests, and in the routine examination of chronic pyelonephritis we rely largely on the estimation of the blood urea. The clinical symptoms caused by renal insufficiency with chronic pyelonephritis are those that usually accompany interstitial nephritis. Increase in blood pressure, retinal changes or reduction in urinary output, such as occurs with glomerular nephritis are, as a rule, not observed, except as terminal complications. With renal insufficiency present the patient's condition may remain stationary for many years under a proper regimen, such as restriction of protein, rest, external applications of heat, thorough elimination, and regulation of habits of living.

ETIOLOGY

Meisser and Bumpus have demonstrated experimentally the significance of foci of infection in the etiology of chronic pyelonephritis. Bugbee and other observers have discussed the possibility of lesions of the colon as an etiologic factor. Von Lackum has recently demonstrated that nongonorrheal prostatic infection acts more often as a focus of chronic infection than was generally believed. It is, in fact, generally recognized that there must be a primary focus of infection in most cases of chronic pyelonephritis, and in every case roentgenograms of the teeth should be made, the tonsils should be investigated, secretion from the prostate and cervix examined, and intestinal stasis excluded. The probability of such foci being closely related to the chronic renal infection is evidenced by the acute exacerbation of symptoms frequently observed immediately following the removal of infected teeth and tonsils.

TREATMENT

Various procedures have been advanced in the treatment of chronic pyelonephritis, not one of which has proved to be specifically successful. Among these procedures may be mentioned removal of foci of infection, lavage of the renal pelvis and bladder, dilation of the ureter, internal antiseptic medication, intravenous medication, and vaccines. All these measures have proved to be palliative rather than curative.

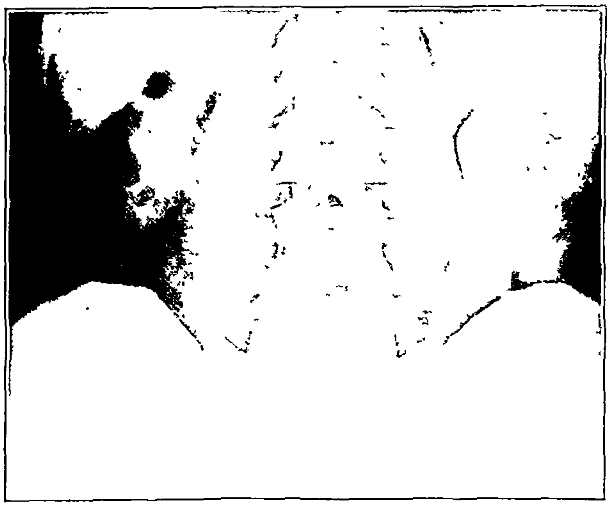
Fig 2—Slight pyelectasis is shown, but the calices are contracted and cicatricial.

Removal of Foci of Infection.—The effect of removing foci in cases of acute and subacute urinary infection is frequently striking. An acute exacerbation of symptoms may immediately follow removal, but subsequent improvement often takes place. Unfortunately, however, the infection in chronic pyelonephritis is of such long standing that, even though the foci are removed, recovery is not prompt. Nevertheless, they should be removed to prevent further reinfection. This program should include careful examination of the tonsils for evidence of septic material and complete dental roentgenography. Examination of the prostate and seminal vesicles should be made for evidence of infection, even though history of venereal infection is present. This is also true with regard to chronic infections of the cervix. Chronic constipation may also be a factor and should be eliminated by means of dietary precautions and catharsis if necessary. A review of the results of such treatment indicates that there is a greater degree of improvement if all foci have been removed.

Pelvic Lavage.—Temporary improvement can undoubtedly be brought about by lavage of the renal pelvis and bladder with antiseptic solutions, and the procedure is justified. It is our custom to inject slowly 10 cc. of a 1 or 2 per cent solution of silver nitrate into the renal pelvis, with the patient in the Trendelenburg position, and allow it to remain for ten minutes. This is repeated, together with daily lavage of the bladder in the interval, every four or five days. Improvement in the condition of the bladder and reduction in the number of pus cells in the ureteral specimens will usually be evident at the end of three or four weeks. It has been stated that any improvement that may result from this procedure is brought about by dilating the ureter with the catheter. This, however, is open to question, since in most of our cases a number 5 ureteral catheter was introduced and its dilating influence is not probable. It is surprising, after a course of lavage of the bladder and pelvis, how much the patient's urinary symptoms, as well as the general condition, will improve. Patients will repeatedly return at intervals of a few months for further treatment of this kind. That it offers any chance of permanent cure cannot be asserted, of course, but the results justify the procedure.

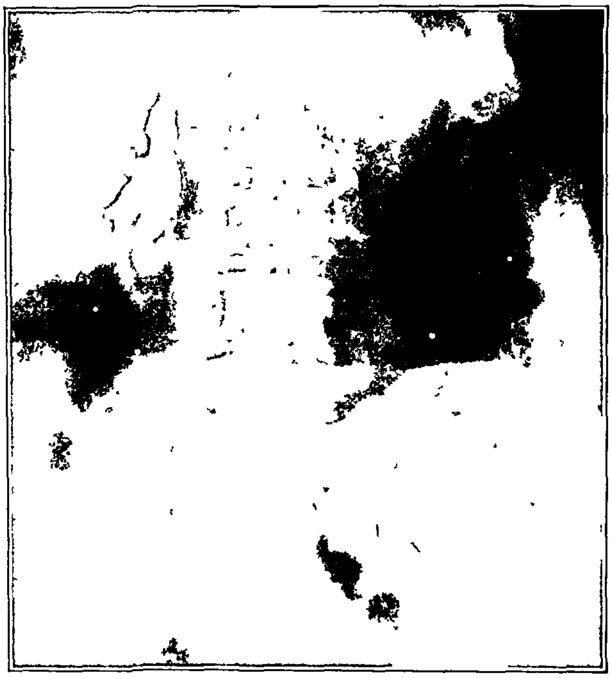

Fig. 3.—The ureter, although not completely filled, is markedly dilated as far as the ureteropelvic juncture. In spite of this the pelvis is normal and the calices but slightly dilated.

Dilating the Ureter.—As the result of cicatricial changes in the ureter, renal drainage may be interfered with and dilation of the ureter by means of bulbous sounds is indicated. During the last few years we have been dilating the ureter as part of the routine treatment of chronic pyelonephritis. As far as we can ascertain there has been no greater degree of immediate improvement in this group than in the others. The question may well be raised whether actual stricture of the ureter can be permanently relieved by this method. In most cases in which definite areas of constriction were found in the ureter, repeated dilation with sounds even to a caliber of 14 and 16 French failed to give permanent relief. Ureterograms made subsequently usually show little or no change in the degree of ureterectasis.

Internal Medication.—Although it is possible that the internal urinary antiseptics may exert some influence on acute and subacute pyelonephritis, it is difficult to see how any drug can reach the infected interstitial tissues in chronic pyelonephritis. Among the various forms of internal medication that have been used in recent years in the treatment of infections of the urinary tract may be mentioned methenamine, acriflavine and hexylresorcinol. Methenamine has not proved to be of much value in the treatment of chronic pyelonephritis. It is possible that the difficulty in rendering the urine acid has been a factor. Recently it has been found that by combining it with ammonium chloride the acid medium may be secured and the efficacy of methenamine increased. Acriflavine, which gave much promise in vitro of being the long-sought urinary antiseptic, has not been of much value in the treatment of chronic urinary infection. Hexylresorcinol has recently been advanced by optimistic observers as efficacious in overcoming chronic pyelonephritis. We have given this drug in a series of forty cases of chronic pyelonephritis. In most of them two or three capsules were given three times daily for at least two months and the fluid intake was reduced. In not one of the twenty-four cases that we have been able to check up carefully have we observed complete eradication of infection. While the symptoms improved and the amount of pus in the urine was reduced in several cases, in no case was the urine negative either microscopically or by culture. This may be due in part to the fact that in nearly all the cases the infecting organism was the colon bacillus and not a coccus. It must also be said that hexylresorcinol is claimed to be a urinary disinfectant rather than a renal.

Intravenous Medication.—Among the drugs that have been advised for intravenous use in overcoming urinary infection, mercurochrome-220 soluble, acriflavine, arsphenamine and methenamine have been used most widely. While they are of undoubted value in the treatment of acute and subacute pyelonephritis, they have not been effective in eradicating chronic infections. It is true that intravenous medication, particularly with mercurochrome or arsphenamine, is frequently followed by marked reduction in the number of pus cells in the urine; nevertheless, in a variable time the previous degree of infection will return.

Vaccines.—Several years' use of vaccines gave us the impression that they had little or no effect and we have largely discarded them. While the proportion of cures following their use is not greater than the average, it is surprising that a number of patients reported that their symptoms disappeared within a short time following the vaccine. The vaccines were autogenous in most of the cases, and in the others they were prepared from stock colon bacilli.

Surgical Treatment.—Chronic bilateral pyelonephritis is a condition that is not usually considered amenable to surgical treatment. In a review of 2,040 cases of chronic pyelonephritis observed at the Mayo Clinic, surgical treatment was indicated in sixty cases. The various lesions that prompted surgical treatment were: (1) diffuse pyelonephritis with destruction of function in one kidney; (2) unilateral advanced stricture; (3) pyelectasis; (4) secondary formation of renal calculus; (5) atrophic pyelonephritis, and (6) persistent hematuria.

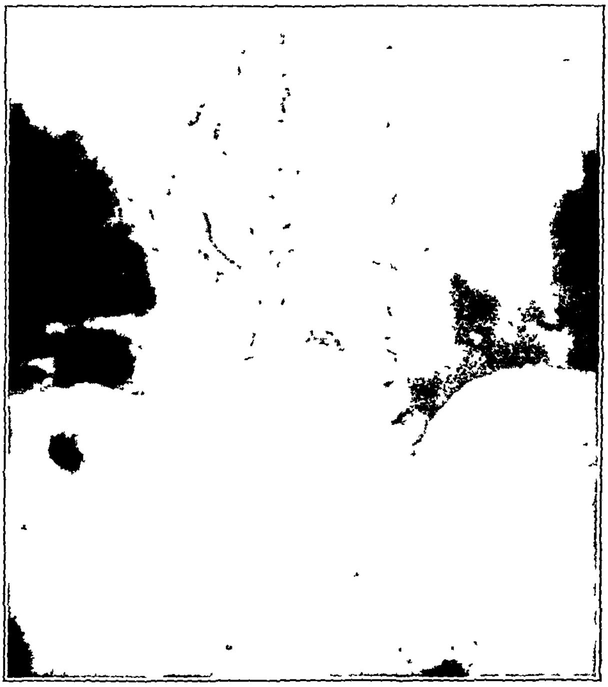

Fig. 4.—Marked ureterectasis extends as far as the ureteropelvic juncture. Above this the pelvis and calices are small and practically normal.

Unilateral exacerbation of renal infection and cicatricial changes with constriction of the ureter occasionally occur with chronic bilateral pyelonephritis and necessitate nephrectomy. Cicatricial changes in the ureter may be so advanced and the destruction of the kidney so great that dilation of the ureter will not produce *any permanent benefit.* While in a few cases plastic operations may be of value, in most cases nephrectomy will be indicated.

PROGNOSIS AND RESULTS OF TREATMENT

It has been our custom to inform inquiring patients that we believe from our experience that one third of these patients will recover, another third will be markedly improved, and the remaining third will not be helped by the treatment received. This has been largely borne out by a survey of the cases reviewed.

Of the 251 patients examined and treated during the period from Jan. 1, 1910, to Jan. 1, 1916, we were able to trace 145 patients who were treated ten years or more ago. Of this number, 101 are still living and forty-four are dead. Of the 101 living patients, forty-one described themselves as quite recovered from the infection, twenty-eight are markedly improved, and thirty-two are little, if at all, improved. While it is true that recovery from previous symptoms does not necessarily indicate freedom from infection, it is strong presumptive evidence of cure, particularly when it is considered that treatment was completed ten years or more ago and that the average duration of symptoms before examination was six years. It is also remarkable that the patient's general condition was reported as good in fifty-nine cases, as fair in thirty-six, and as poor in only six. It should be noted that in seventy-two cases the treatment was not as thorough as that now employed. It is interesting to compare the end-results in the cases in which little or no treatment was given. Of the twenty-nine patients in this group there were eleven who reported no improvement. Of the forty-four patients who were reported as having died, sixteen died from evident renal disease. The average age was 58 years and the average duration of the disease before death sixteen years. The severity of infection was graded as mild or moderate in fourteen. Of the remaining twenty-eight patients, ten died from other causes and eighteen from causes unknown.

Although it might be inferred that the disease is probably self-limiting in many cases, nevertheless the various forms of treatment have undoubtedly succeeded in increasing the percentage of patients cured and improved. In reviewing the types of treatment employed, it is difficult to draw any exact conclusions, since in most cases various methods of treatment were combined in order to insure results. The percentage of cures following several methods of treatment was apparently about equal. It is evident, however, that those patients in whom foci of infection were removed as a group fared better than those in which this was not done.

When the infection has permeated the entire renal substance and cicatricial changes in the ureteral and pelvic walls are advanced, it is self-evident that the difficulties of recovery are greatly increased. It would seem logical to assume that the best opportunity to eradicate urinary infection would follow if in the early stages of infection (1) all foci of infection were removed; (2) the infection and the resulting cicatricial changes in the ureter and pelvis were treated by means of lavage and possibly dilation, and (3) fluids and urinary antiseptics were used, even though no internal medication has yet been advanced that offers permanent recovery from chronic renal infection. These patients should be persistently treated in order to eliminate the infection as completely as possible.

Nature of Fundamental Research.—Fundamental research is concerned purely with the scientific interest of the matter, practical research with the application of science to medicine or industry. One cannot always keep the two apart. I do not propose to argue which of the two types is higher or better. Certainly I do not wish to condemn practical research because it is practical, but I would urge you not to pour your contempt on those who find greater fascination in the study of what, at the moment at least, appears to be merely of scientific interest; for no one can foretell when the fundamental research is going to point the way to practical developments.—Bigger, J. W.: *Irish J. M. Sc.* **6**:21 (Jan.) 1927.

IDENTIFICATION BY COMPARISON OF ROENTGENOGRAMS

OF NASAL ACCESSORY SINUSES AND MASTOID PROCESSES

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The case here described is the only one on record in which identification of an individual has been obtained through the use of roentgenograms of the pneumatic cells of the skull, or indeed of roentgenography at all. We had often considered the possibility of identification by comparison of roentgenograms of the nasal accessory sinuses, but had never had the opportunity to try out the idea. When we came to look up any possible literature in regard to this subject, we found only one reference, an article by Schuller[1] of Vienna, in which he suggests the identification of skulls by comparison of roengten-ray plates of the frontal sinuses with plates formerly taken, in emergency medicolegal cases and in criminal anthropometry. When the problem of this case was presented, we knew nothing about Schuller's recommendation, but we put our own theories and, inadvertently, Schuller's also, to the test, and found that they work. We have amplified Schüller's recommendation by using roentgen-ray plates not only of the frontal sinuses, but of all the accessory sinuses together with the sella turcica, and perhaps, more important still, of the mastoid process with its air cells.

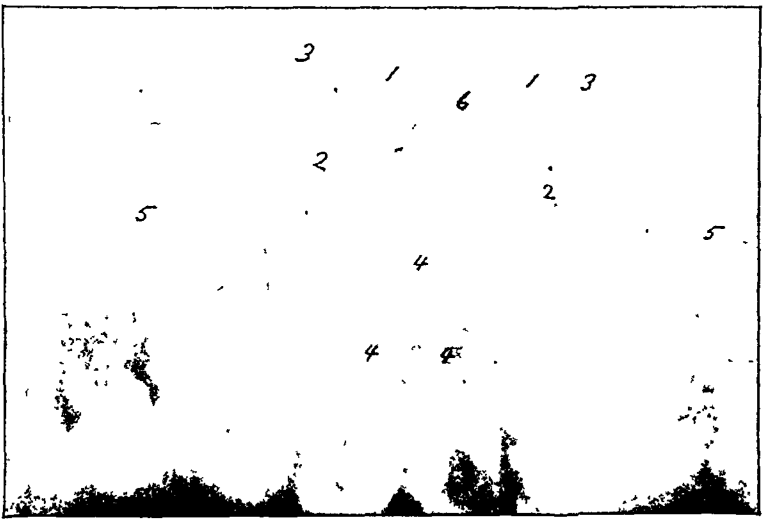

Fig 1.—Anteroposterior view of the nasal accessory sinuses of the known J. L., taken in 1918.

The following history of identification of a body is as strange and romantic as that found in any novel, but the medicolegal aspects of the case, as well as the personal ones, were most serious and urgent.

In an article[2] entitled "Headache and Chronic Mastoiditis," written in 1922, the case of J. L., operated on for left-sided mastoiditis in January, 1920, was discussed and some reference was made to the roentgen-ray observations. This patient, who had been greatly troubled with headache, was relieved after the mastoid operation and continued in good health for the next five years. In 1925, he went to India and wrote to his family of his intention of going into Thibet; as entry was forbidden by the Indian government, he stated that it would be necessary for him to "disappear"; i. e., to drop officially out of sight. In the meantime he gathered his caravan together and encamped temporarily with some friends on the banks of the Indus River in Kashmir. June 8, 1925, great alarm was occasioned by his sudden disappearance, and search was started along the river. Seventeen days later, the bodies, first of one white man, and then of another, both badly dismembered and disfigured beyond any possibility of recognition, were found in the river, 70 miles below camp. We were appealed to by the family for possible means of identification and suggested the scar of a simple mastoid operation on the left side. The first cablegram from India described a body with the scar of a radical Schwartze-Stacke operation, and this body was consequently rejected. A second cablegram described the other body as bearing the scar of a simple left-sided mastoid operation, and on the strength of this scar alone, after prolonged correspondence between the United States Department of State and the Indian government, which does not permit a body to be shipped out of the country uncremated, the body finally arrived, hermetically sealed in a freight steamer direct from India, and was brought to the New York morgue, Feb. 23, 1926, 260 days after the disappearance of J. L., in June, 1925. Naturally, however, the mere fact of the presence of a body bearing the scar of a mastoid operation did not carry conviction of identity either to a family unwilling to be convinced or to the lawyers of an estate.

The case possessed a decided medicolegal complication, since J. L. was heir to much real estate to which title could not be given without positive identification, which was made increasingly necessary because of the written statement of J. L. to his family of his intention to "disappear" into Thibet. After the arrival of this body, we were again appealed to, this time for any means of positive identification. The body which had arrived at the morgue was a terribly disfigured, mutilated, mummified object, with one arm torn off and hardly any flesh left over the facial bones or the bones of the remaining hand, but still showing the scar of a simple mastoid operation. On being asked if we could furnish means of identification, we replied unhesitatingly that we could do so, for we still held in our possession roentgenograms of the nasal accessory sinuses and of both mastoid bones of J. L., taken by one of us (F. L.) in 1918. We had noted in many other cases what all otorhinologists must have noted: the absolute identity of roentgen-ray pictures taken of these structures, in the same patient, after lapses of five, ten, fifteen or more years. Although we had never before had occasion to use the fact, as shown by roentgenograms, of the unchanging shape, size, contour and relation to neighboring structures of the pneumatic cells of the skull as a means of personal identification, these facts could unquestionably so be used. Accordingly, our plan of identification was to take roentgenograms of the frontals, ethmoids, sphenoids and antrums and of the mastoid processes, of the body at the morgue, at similar angles to those taken of J. L., in 1918, to compare the new roentgen-ray plates with the former ones of J. L.'s head, and to sum up their likenesses or differences.

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[1] Schüller, Arthur: Das Rontgenogram der Stirnhöhle: Ein Hilfsmittel für die Identitätsbestimmung von Schadeln, Monatschr. f. Ohrenh **55:** 1617-1620 (Nov.) 1921.

[2] Culbert, W. L.: Headache and Chronic Mastoiditis, M. Rec. **101:** 486-489 (March 25) 1922.

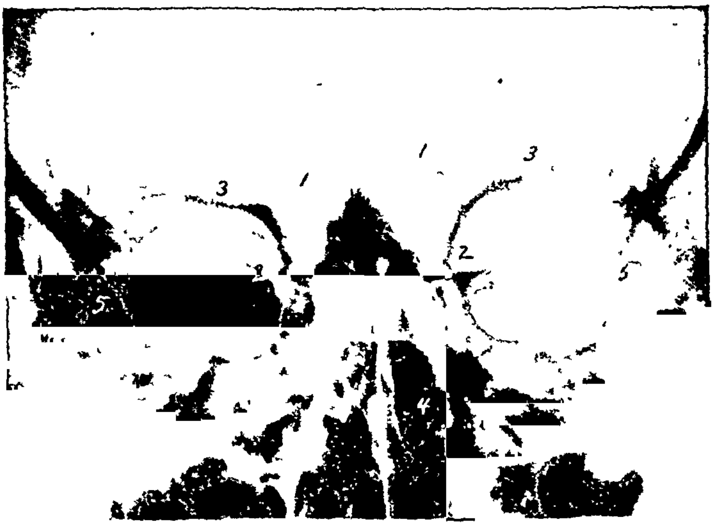

Fig. 2.—Anteroposterior view of the nasal accessory sinuses of the body brought in from India for identification, taken in 1926.

It is, of course, essential that a second set of roentgenograms made for the purpose of comparison should be made at approximately the same angle as the first set of plates, so as not to distort the outline of the sinuses; but even if the angle varies slightly, an expert in the anatomy and roentgenography of the sinuses and mastoids can compensate for a slight change in angle.

The report by one of us (F. L.) of the comparison of the roentgenograms taken at the morgue with a portable roentgen-ray machine and those taken of J. L., in 1918, is as follows:

The following numbers correspond to similar numbers in the anteroposterior views:

1. Representing the frontal sinuses. The right is smaller than the left, and they are separated by a wide partition. The shape is similar in the two examinations.
2. The nasal wall of the orbits. The greater curve is on the right, and the lesser curve on the left.
3. There is a slight flattening of the superior wall of the right orbit, and a regular curve on the left.
4. The shape of the sphenoid sinus as viewed on the anteroposterior view is triangular in each plate, and the same irregularities in contour are visible.
5. The line representing the border of the sphenoid bone is slightly curved on the left. This is usually a straight line.
6. There is a small cell in the crista galli which is not a frequent occurrence.

The following numbers correspond to similar numbers in the lateral views:

7. The lateral view of the frontal sinuses shows them to be of similar shape, with a deep anteroposterior diameter at the superior margin and a shallow anteroposterior diameter in the floor.
8. There is a small circular shadow in the nasal crest indicating a separate cell. This does not occur in all skulls.
9. The anterior wall of the frontal bone is fairly thick above the frontal sinus. Both plates correspond.
10. The shape and size of both antrums correspond in the two plates.
11. The sphenoids are small and circular on the lateral view, and located well forward. These usually extend back under the sella turcica. They correspond on the two plates.
12. The flattening of the floor of the sella turcica shows on both plates. This is usually a regular curve.
13. The posterior clinoid processes are of similar size and shape.

The following numbers correspond to similar numbers in the mastoid views:

14. The left mastoid shows cell structure on the first plate, while the second does not show cells but has a postoperative appearance. We know that the left mastoid had been operated on during the interval between the first examination in 1918 and the last in 1926.
15. In the right mastoid there is a clear cut circular cell just below the lateral sinus of the brain similar in size and position on the two sets of plates.
16. The right lateral sinus of the brain is fairly well back in both plates. The position of the lateral sinus varies in different individuals. The general direction of the sinus is perpendicular in both plates.
17. The line of the tegmen tympani is well curved in both plates. This line also varies in different individuals.
18. There is a large cell of similar shape just across the knee of the sinus in each plate.
19. There is a fair sized cell in each plate with a thicker wall than the other cells. This is unusual.
20. There are cells extending forward into the zygoma, and over the glenoid cavity. This is not unusual, but in this case the size and shape of the cells are similar in the two examinations. This is especially noticeable in the cell directly under the numeral 20.

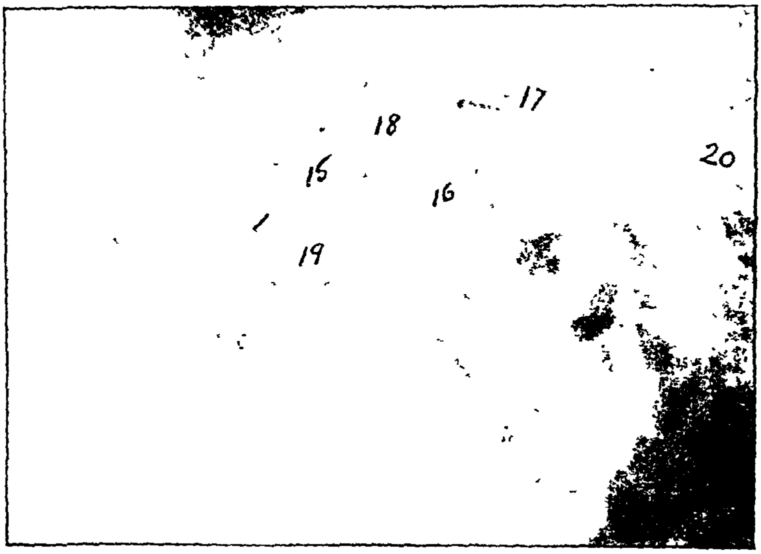

Fig. 3.—Right (normal) mastoid of the known J. L., taken in 1918.

In addition to the identification by roentgenograms, we have had the added satisfaction of the corroborative evidence of the dentist, Dr. A. R. Starr, Jr., who recognized three gold inlays in the teeth of the body at the morgue as those he had placed in J. L.'s teeth in 1924-1925.

COMMENT

In considering the subject of anthropometry by roentgenograms of the pneumatic cells of the skull, we know that all otorhinologists must have been impressed with the individuality of the nasal accessory sinuses and the mastoid cells, in every operative case, long before the introduction of roentgenography. Observation of thousands of roentgen-ray plates has confirmed and increased our knowledge of the difference in size, shape, position and relation to surrounding structures of the nasal accessory sinuses and mastoid processes, in every individual. Schuller says that there would hardly be two men, roentgenograms of whose frontal sinuses would correspond, and he is willing to base identification on these sinuses and their relation to surrounding structures alone. When, however, we add roentgenograms of the other accessory sinuses and of the mastoid processes, we have a long list of landmarks for making positive identification.

Roentgenograms of the nasal accessory sinuses and of the mastoids have also confirmed our knowledge of the lifelong permanence of the contour of the bony structures in an adult person; plates taken at intervals, say, of a decade each, from 20 to 70 would show practically the same throughout a lifetime. Of course, as Schuller states, allowances must be made for growth of the sinuses in juveniles, a condition we are not here considering; also possible rarefaction and thinning of bone must be accounted for in aged persons; while, at any time, changes in the shape or character of the bones due to an infective or inflammatory process must be allowed for. Identification is best made, as in the case here reported, by comparison of parts unaffected by operation, injury or disease. The total absence of any of the structures in question, as a frontal sinus, or cells in the mastoid process, is merely a further identifying mark.

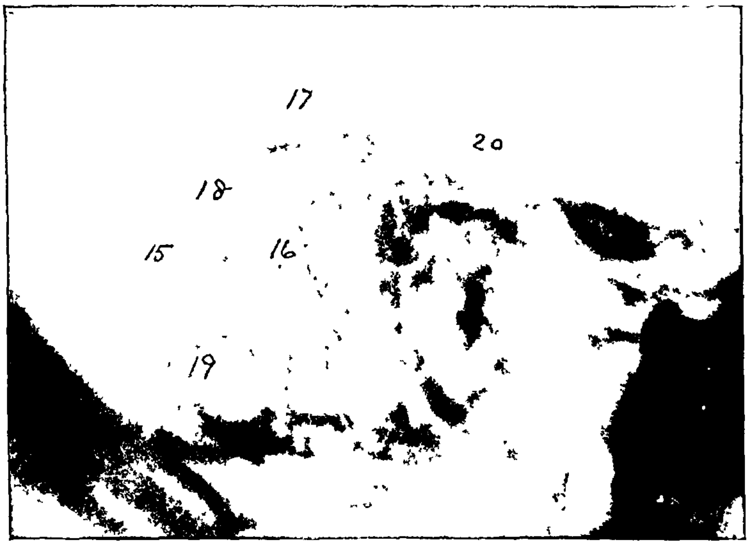

Fig 4 —Right (normal) mastoid of the body brought in from India for identification, taken in 1926.

Anthropometric roentgenography for identification is a subject that has barely been touched; the literature furnishes only four references suggesting its use. As stated above, this case so far as we know is the first application made of this method. The New York Police Department, the great insurance societies, and the library of the New York Bar Association could not furnish cases in any way similar.

Criminal identification has relied almost entirely on finger printing. This is a method of only relative reliability, since the cutaneous ridges can be accidentally or wilfully spoiled by various scarrings, and even the bones of the finger tips and the nails can be partly changed with criminal intent. The finger printing method is greatly improved by Béclère's suggestion[3] to take roentgenograms of the thumb; the negatives are fixed, so that in addition to the least details of the structure of the skin there is a view of the skeleton and the outline of the nail, thus introducing two new factors into identification measurements.

However, the use of finger printing for criminal identification has made this method repulsive to the public, which resists any attempts at general identification. Furthermore, in cases of accident, the head or parts of the head seem, generally speaking, to be more often recovered than the hands. In the case here reported, one of the arms had been torn off by contact with rocks in the rapids, while the flesh had almost been denuded from the remaining hand; yet the bony structures of the head, with the exception of a few missing teeth, were intact.

For these various reasons, it would seem well to favor roentgenograms of the pneumatic cavities of the skull for purposes of identification. If such roentgenograms had been taken, for example, of men going into war, there would have been far fewer bodies of unknown soldiers, since identification would be possible from mere fragments of the anterior or lateral skull. For example, given a portion of the pneumatic skull, as one of the mastoid processes or the ethmoid capsule or, as Schüller states, the frontal sinuses, or, as we believe, even one frontal sinus, and an undoubted identification could be made. The skull bones have the advantage, also, over the finger tips in that any amount of deforming surgery cannot destroy all their identifying landmarks.

The case here reported establishes a medicolegal precedent, since the identification made by comparison of the roentgenograms of the head of the known J. L. in 1918 and those made of a hitherto unidentified body at the morgue in 1926 was accepted as positive by the lawyers of J. L.'s family estate. In taking roentgenograms for use over an indefinite period of time, it is necessary of course to treat them so that they shall become imperishable records.

The field of anthropometric roentgenography, although almost untouched, is obviously a very important one, both as a record of general identification and in criminal identification.

114 East Fifty-Fourth Street.

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[3] Béclère, N · La radiographie anthropométrique du pouce, Compt. rend Acad d. sc. **167**: 499 500 (Sept 30) 1918.

Definitions.—To advance in knowledge, we must not only observe accurately, but we must define and we must classify. If our definitions are confused and vague or our classifications invalid, we may conceal from ourselves the realities with which we think we are dealing.—Clarkson, R. D.: *Edinburgh M J*, January, 1927.

Clinical Notes, Suggestions and New Instruments

AN IMPROVED OPERATING PROCTOSCOPE

Rudolph V. Gorsch, M.D., New York
Instructor in Proctology, New York Polyclinic Medical School and Hospital

Several improvements have been made in a Yeomans' proctoscope to facilitate operative proctoscopic instrumentation and particularly to simplify and broaden the scope of surgical endothermy, when these are indicated, in the treatment of such conditions as rectocolonic neoplasms, ulcerations and strictures.

The improved proctoscope has been enlarged to a 1½-inch inside diameter, and is 8 inches in length. Anesthesia is obviously necessary in using a proctoscope of these dimensions.

Along the lower wall of the proctoscope a one-fourth inch tube has been introduced extending to within three-eighths inch of its distal end, and projecting one-half inch beyond the proximal end (fig. 1, *A-B*). This tube is particularly designed for suction removal of smoke produced during surgical endothermy and cauterization. A tonsil suction apparatus serves this purpose admirably. This tube can be used also for inflation if desired. Its proximal end is corrugated for the reception of a rubber tube.

LIGHT CARRIER

I consider the Yeomans' proctoscope a very practical and simple instrument, particularly for instrumentation, but it has been my experience that the light carrier is apt to be inadvertently turned during operative manipulation, thus interfering with the source of the light. It has also been found necessary heretofore to remove the light carrier from its tube before introducing the proctoscope or in replacing the obturator.

These minor difficulties have been overcome by an indented clip incorporated in the carrier. The clip slides in a grooved notch directly over the center of the light carrier tube and allows the carrier to be partially withdrawn and held in this position without interfering with the introduction or removal of the obturator or during instrumentation. It also prevents the light carrier from turning, anchoring it in its proper axis in all positions. Even though the proctoscope should be inverted, it is impossible for the carrier to fall out from either the "in" or "out" positions.

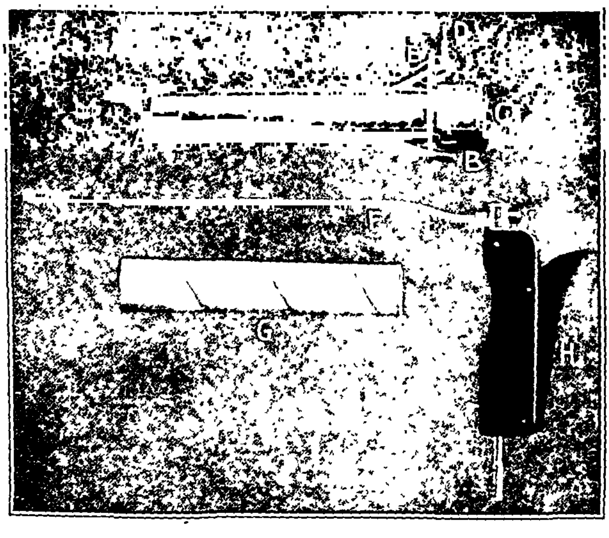

Fig. 1.—*A*, distal end of suction tube, inside the proctoscope; *B*, proximal end; *C*, eye piece (the size and length should be noted); *D*, light carrier in the "in" position, ready for use; *E*, clip; *F*, offset; *G*, bakelite tube, black inside; *H*, electrode handle.

The eyepiece has been lengthened, to keep the operator's face at an appreciable distance from the patient's buttocks. It has also been made slightly larger than the inside diameter of the proctoscope and may be readily disjointed for the introduction of lenses of different focal lengths (fig. 2).

To obviate the glare from the metallic tube, there is a bakelite insert tube, jet-black on its inside, shown in figure 1.

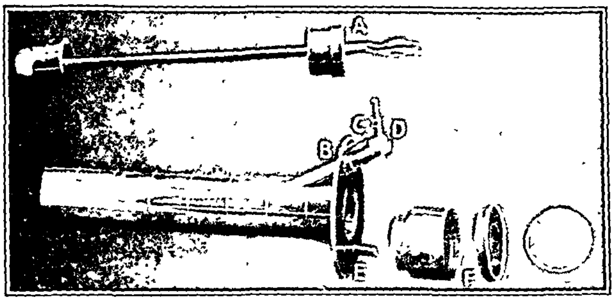

Fig. 2.—*A*, obturator; *B*, grooved notch; *C*, clip; *D*, light carrier in the "out" position, held securely by clip; *E*, suction tube; *F*, eye piece disjointed.

A convenient electrode handle which I have found very satisfactory because it keeps the hand out of the line of vision and an insulated electrode with an offset for the same purpose are also shown in figure 1.

253 East Eighty-Sixth Street.

New and Nonofficial Remedies

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application. W. A. Puckner, Secretary.

COD LIVER OIL (See New and Nonofficial Remedies, 1926, p. 118).

Viking Palatable Cod Liver Oil.—Cod liver oil containing 0.2 per cent of benzaldehyde. Its fat soluble vitamin A content is such that 0.002 Gm. per day is sufficient to initiate growth in the albino rat.

Dosage.—2 cc. (30 minims) twice daily for infants; 4 cc. (1 fluidrachm) three times daily for adults.

Manufactured by Alv. Jensen, Oslo, Norway (Sigurd E. Roll, Chicago, distributor). No U. S. patent. U. S. trademark 216768.

Viking palatable cod liver oil is mixed with chloroform and a few drops of strong sulphuric acid added: the sediment has a dark violet or brownish color.

Young albino rats are fed on a diet deficient in vitamin A (with casein as the protein ingredient) until growth, as indicated by the graphic record of gains in weight, ceases; then the diet receives an addition of viking palatable cod liver oil in amounts to induce a resumption of growth: not more than 0.002 Gm. per day are required.

ANTIRABIC VACCINE (See New and Nonofficial Remedies, 1926, p. 341).

United States Standard Products Company, Woodworth, Wis.

Rabies Vaccine-U. S. S. P. (Semple Method).—An antirabic vaccine prepared according to the general method of David Semple (phenol killed). The brains of rabbits killed after inoculation with fixed virus rabies are placed in a bottle containing beads and 1 per cent phenol solution. The bottle is thoroughly shaken, the resultant emulsion passed through a 100 mesh screen, and sufficient 1 per cent phenol solution added to yield an 8 per cent suspension of brain substance. The emulsion is incubated at 37 C. for twenty-four hours and then diluted with an equal volume of physiological solution of sodium chloride so that the finished product contains 4 per cent of brain substance in 0.5 per cent phenol. Marketed in packages of fourteen syringes, each containing 2 cc. The content of a syringe is administered daily over a period of fourteen days.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, MAY 21, 1927

THE TREATMENT OF EPILEPSY

For some time, considerable attention has been devoted in this country to the therapeutic possibilities of prolonged fasting in the treatment of epilepsy. Favorable results so far as the suppression of the characteristic epileptic attacks is concerned were reported in 1921 by Geyelin.[1] Obviously the withholding of food can at best become only a transient method of treatment; consequently efforts have been directed to ascertain what changes in the organism incident to inanition might account for its effect in ameliorating the symptoms of epilepsy. One of the metabolic peculiarities accompanying fasting is the accumulation and excretion of aceto-acetic acid and its products, beta-hydroxybutyric acid and acetone. A similar ketosis occurs in diabetes when the oxidation of sugar is sufficiently depressed, and may be provoked in nondiabetic subjects by diets in which the proportion of carbohydrate and protein are sufficiently restricted. Wilder[2] suggested that such diets might offer a method of treatment for epilepsy that would equal or surpass in effectiveness the fasting procedure, and prove to be more practical because it could be continued for longer periods. Precisely how ketosis, if that is the responsible factor, can modify the epileptic seizures remains to be ascertained. It has been suggested that one of the ketone substances, aceto-acetic acid, can somehow exert some anesthetic action in the body and thus suppress the attacks as chloroform is known to do. Peterman[3] has pointed out, however, that it is not practical to attempt a ketosis by feeding or injecting aceto-acetic acid, because the organism easily converts this substance into nontoxic materials. The only practicable method, he states, of securing a sufficient accumulation of aceto-acetic acid in the nondiabetic body is to restrict carbohydrate metabolism, either by starvation or by a diet containing a minimal amount of carbohydrate.

Ketosis is not the only metabolic change characteristic of starvation. A series of studies[4] at the Massachusetts General Hospital has elucidated the clinical and chemical results observed in fasting epileptic children. The main conclusions are that during fasting the epileptic attacks are stopped; some time after the fast is broken they recur again; during fasting there is an increased blood uric acid concentration, a lowering of the blood sugar, a slight lowering of the p_H of the blood, diminution of the carbon dioxide combining power and a marked excretion of acetone bodies, shown qualitatively in the breath and urine. It was also seen in these cases that there was no change in the blood nonprotein nitrogen and amino-acids.

From the biochemical statistics now available it is apparent that a true acidosis as well as a ketosis actually occurs during the fasts. Instead of enforced inanition the Massachusetts pediatricians have employed the highly ketogenic diets that were suggested by Wilder[2] and Peterman;[3] coincident with the resulting marked ketonuria, a reduction or a cessation of the epileptic attacks has occurred. It has been found possible by apportioning the ketogenic elements (fats) in large excess over the antiketogenic factors (carbohydrates and proteins) in the diet to keep children in a state of ketosis over long periods. According to Talbot and his co-workers[4] the production of a ketosis by diet gives the greatest promise of improvement of any method as yet devised in the treatment of epilepsy of childhood.

THE POINT OF VIEW IN INTERNAL MEDICINE

Since the time of Hippocrates and the development of the ancient Greek cult of eclectics, systems have been the curse of medical progress. The development of all-or-nothing policies as to the cause and cure of disease represent extremes far removed from the open mind and the rationalization that are the marks of true science. Such policies are, however, not to be confused with the development of a point of view. Frequently the ability to consider a problem from a new aspect leads to increased knowledge and opens the way for productive research. A recent conspicuous example is the discovery of insulin, followed rapidly by parathyrin, and the finding of the toxin of the streptococcus of scarlet fever, followed promptly by the discovery of similar toxins associated with streptococci in erysipelas and in puerperal infections.

The German clinician Krehl views with interest the present state of medical practice and is inclined to think that the situation presents a crisis. The relation of the physician to the patient has always been the important feature of internal medicine. With the coming of pathologic anatomy and physiology, particularly with the conception of organ pathology first elaborated by Morgagni, came the tendency to view the disease apart from the patient. Such a view clashed naturally with the conceptions of constitutional or general diseases, and with the consideration of inflammation or fevers involving the entire organism. More recently the psychologic hypotheses promulgated by such leaders as Moebius and Freud have turned thought toward the important causal relations between psychic phenomena and somatic disturbances.

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[1] Geyelin, H. R.: Fasting as a Method of Treating Epilepsy, M. Record **99**: 1037, 1921.

[2] Wilder, R. M.: The Effect of Ketonemia on the Course of Epilepsy, Mayo Clinic Bull. **2**: 307, 1921.

[3] Peterman, M. G.: The Ketogenic Diet in the Treatment of Epilepsy, Am. J. Dis. Child. **28**: 28 (July) 1924.

[4] Hoeffel, Gerald; and Moriarty, Margaret: The Effects of Fasting on the Metabolism of Epileptic Children, Am. J. Dis. Child. **28**: 16 (July) 1924. Shaw, E. B., and Moriarty, Margaret: Hypoglycemia and Acidosis in Fasting Children with Idiopathic Epilepsy, ibid. **28**: 553 (Nov.) 1924. Talbot, F. B.; Metcalf, K. M., and Moriarty Margaret E.: Epilepsy: Chemical Investigations of Rational Treatment by Production of Ketosis, ibid. **33**: 218 (Feb.) 1927.

Therapy has likewise been modified by changing points of view. As Krehl points out, the old therapy was based on the ability of the physician to make clinical observations and to do everything possible to aid the *vis medicatrix naturae.* The modern physician may make his diagnosis on the basis of laboratory observations alone and apply treatment leading to a modification of the laboratory evidence of disease. Thus it is conceivable that a physician who observed the blood and cerebrospinal fluid regularly of a patient with syphilis or one of its varied forms might prescribe treatment leading to normality in these fluids, which would be for the good of the patient, although the physician had never actually seen the patient himself.

Such objective studies are a step toward the establishing of medical practice on a strictly scientific basis. Nevertheless they tend to lead away from the consideration of the patient as a living organism, which was the prime feature of earlier medical practice.

In his consideration of the subject, Krehl is inclined to deprecate particularly the looseness of practice which clings too greatly to the older conceptions yet finds its excuse in the discoveries of the present. One of the worst forms, he says, is that of men who believe in their intuition. It is more convenient to rely on this than to make a tedious examination of the patient. In the past, whatever symptoms did not fit into a clear-cut diagnosis were regarded as hysteria. If any one now gets the notion that some of the symptoms may be psychogenic, further examination is considered unnecessary. "Words as substitutes for causal explanations as well as speculative systems," Krehl emphasizes, "are again beginning to play an important rôle. Lability of proteins is one of the most abused phrases. Many scientists believe that they have said something definite when they have classified a phenomenon as a colloidal process, a tendency, diathesis or peculiarity of the cells. The p_H is a favorite explanation for something not quite understood, as is also a general hint about the internal secretions."

Every competent observer realizes that medicine is still far from being an exact science in the sense that physics, chemistry and bacteriology are exact sciences. The wise man does not discard the accomplishments of the past for unaccomplished hopes of the future. Krehl feels that the present crisis in medical thought is due to the realization that many physiologic observations merely parallel the old medical view instead of uniting with it. Fusion must be the aim. The physician must recognize the influence of the mind on the body, and try to find the exact significance of the so-called will to live. The fact that one patient may be completely disabled whereas another with the same objective signs and symptoms is able to recover because of some variation in personality has long been recognized by the experienced clinician. Understanding or explanation of this phenomenon is not yet available. These questions should not be shunned as problems for the mystic, but the solutions should be conscientiously sought, because only by such understanding will medicine advance further.

IMMUNOLOGICALLY SPECIFIC POLYSACCHARIDES

Immunologic reactions have been described by Wells[1] as the processes by which the living organism defends itself against the chemical attacks of its enemies and so is able to exist in an environment seething with such enemies. In these chemical reactions, the reagents involved are substances endowed with active chemical properties, and they are the product of chemical activity of the tissues of the body. In few if any cases is the chemical constitution of either the poison of the parasite or the defensive agent of the host known, and knowledge, Wells adds, is gained entirely by observing the reaction or the effects resulting from the reaction.

Heretofore substances with immunologically specific properties have generally been supposed to be derived from proteins. Antigens, that is, substances which, introduced into the tissues or circulating fluids of an animal cause the appearance in these fluids, sooner or later, of substances which react specifically with the antigenic substance, seem always to be large colloidal molecules. In general, all soluble proteins are antigenic, some doubt prevailing as to whether anything except protein molecules can serve as antigens. The antibodies produced by antigens may exhibit a variety of properties, such as are represented by precipitin reactions, agglutinin reactions, and lysis. Although antibodies have not yet been isolated, it is generally held that they too are proteins. They are found associated with the globulin fraction of the serum.

Workers at the Rockefeller Institute for Medical Research have directed attention in a prominent way to the rôle of heretofore unidentified carbohydrate substances in certain specific immunologic reactions.[2] In 1917, Dochez and Avery showed that whenever pneumococci of type I, II or III are grown in fluid

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1. Wells, H. G.: The Chemical Aspects of Immunity, New York, Chemical Catalog Company, 1925.

2. A review of these investigations has recently been published by Heidelberger, M.: Immunologically Specific Polysaccharides, Chem. Reviews 3:403 (Feb.) 1927, from which many of the statements above are taken.

mediums there is present in the cultural fluid a substance that precipitates specifically in antipneumococcus serum prepared by injection of animals with a strain of the homologous type. This soluble substance was demonstrated in culture filtrates even during the initial period of rapid multiplication when little or no cell death or disintegration is occurring. Examination of the blood and urine of experimentally infected animals gave proof of the presence of this substance in considerable quantities in the body fluids, showing that this soluble material, elaborated at the focus of the disease, readily diffuses throughout the body, is taken up in the blood, passes the kidney, and appears in the urine unchanged in specificity. Similarly, a study of the serum of patients suffering from lobar pneumonia revealed a substance of like nature in the circulating blood during the course of the disease in man. Furthermore, examination of the urine of patients having pneumonia due to pneumococci of types I, II and III showed the presence of this substance in some stage of the disease in approximately two thirds of the cases. The specifically reacting substance has already been isolated in sufficient quantities to give assurance of its polysaccharide character. The soluble specific substance of type II pneumococcus is apparently identified with a weakly acidic, nitrogen-free polysaccharide made up chiefly of glucose units. The carbohydrate complexes of the other two pneumococcus types are distinctly different. Heidelberger reports that the three polysaccharides do not contain sulphur or phosphorus and differ from the starch-glycogen group of carbohydrates in their acid properties, in not giving color with iodine, and in their resistance to the ordinary carbohydrate-splitting enzymes. Each substance breaks down on hydrolysis into reducing sugars, a part of which, at least, is peculiar to itself. The type I substance differs sharply from the other two in containing nitrogen and in possessing basic as well as acidic properties, while of the other substances, the type II is a dextrorotatory weak acid and the type III a levorotatory strong acid. Especially striking, Heidelberger adds, is the occurrence of specific substances of such widely differing properties in micro-organisms as closely related as are the three fixed types of pneumococcus.

The discovery of the different carbohydrates elaborated in a specialized way by multiplying pneumococci is destined to contribute greatly to the ease of type differentiation and diagnosis. Further speculation on the rôle of the newly separated substances in the life of the respective micro-organism is engrossing. Heidelberger points out that the pneumococcus is an encapsulated organism, and there are grounds for the belief that the ectoplasmic, or outer, layer of the cell is composed of carbohydrate material which is identical in all its biologic characters with the type-specific substance. On the other hand, the endoplasm, or somatic substance, consists largely of protein that is species, and not type, specific. This protein is possessed in common by all pneumococci, while the carbohydrate is chemically distinct and serologically specific for each of the three fixed types. The cell, therefore, may be conceived as so constituted that there is disposed at its periphery a highly reactive substance on which type specificity depends. If, then, Heidelberger concludes, final proof is brought for the conception that the capsular zone of the organism is largely composed of this carbohydrate substance, is part of the defense mechanism of the cell, and is the site of its initial contact with antibody, then these soluble bacterial polysaccharides acquire new significance not only in the serologic reactions of the cell but also in the actual processes of infection and immunity in the host. In any event these investigations represent a determined effort in the direction of progress toward a better understanding of the nature of bacterial behavior in living organisms.

Current Comment

QUESTIONNAIRES

The open season for questionnaires is again upon us and they are being shot at various parts of the country in alarming numbers. A physician from Ohio recently shot a questionnaire on cysts of the ovary that was more than twenty questions long, considered a record for this type. A questionnaire observed in Michigan seems to have been of the old appendicitis species. Several trimmed in economic questions have also been noted. The physician who hopes to prepare an essay for some June conference based on the experiences of his colleagues and on the use of a tabulating machine finds a pet questionnaire a delightful adjunct to the office. But it is not fair to let these pets grow too large. Otherwise when they go visiting some outraged friend may tear them to pieces and then they will never come home.

THE OCCURRENCE OF ZINC IN MAN

Until quite recently the finding of chemical elements, other than those commonly present in living tissues, in the excreta of man was likely to be interpreted as a sign of something unusual. The demonstration of iodine as a constant, normal constituent of the organism, notably in the thyroid structures, represented the addition of an unexpected novelty to the composition of the body. Of late the question has occasionally been raised as to whether small quantities of other elements once regarded as foreign do not in fact exercise beneficent rôles. Arsenic, manganese, copper and zinc, for example, have been discussed from that standpoint. The problem has become complicated by the discovery that such elements are common contaminants if not actual components of many substances that enter into the dietary; consequently they are ingested unwittingly if not intentionally. The examination of excreta for evidence of harmful metallic elements in the body thus may yield results that are difficult of interpretation from a toxicologic standpoint. This is well illustrated in the case of zinc. Some common foods, such as the oyster, may be exceptionally rich in the element, and it is present in most specimens of market milk. A recent study at the Harvard School of Public Health by Drinker, Fehnel and Marsh[1] on a large number of healthy adults subsisting on an ordinary mixed diet showed daily outputs of zinc as high as 2 mg. in the urine and 20 mg. in the stools, with corresponding averages of 0.9 mg. and 10 mg., respectively, daily. Ingestion of foods particularly rich in zinc may result in what the Boston investigators describe as "amazing" increases in fecal zinc. The renal output is not comparably augmented. In the case of a workman, a daily fecal output of nearly 200 mg. was reached—a figure higher than that observed heretofore for the feces of workmen exposed to zinc.[2] The ubiquity of zinc has thus presented unexpected difficulties for the students of industrial hygiene. As Drinker[1] and her associates remark, obviously the finding of unusual amounts of zinc in the urine and feces of men exposed to zinc industrially has no very great diagnostic significance as evidence of poisoning, if the normal zinc content of urine and feces can be readily and markedly increased at will by changes in diet.

THE CAUSE OF PULMONARY EMBOLISM

Recently two studies on the cause of pulmonary embolism, one statistical, the other bacteriologic, have thrown new light on this serious postoperative complication. Lister[3] selected for his study those cases which came to necropsy at the London Hospital following an operation and compared them with records taken at random from 4,000 major operations. One hundred and ninety-five fatal pulmonary emboli were found following operation and twelve following fracture. This study did not indicate that sepsis exerts any influence in causing massive embolism; there was no undue rate of incidence among the operations in which powerful retractors were used; nor in nephrectomies or Halsted's amputation of the breast, in which much thrombokinase is liberated. The effect of such factors as vomiting, purging, hemorrhage and shock could not be determined, they varied so greatly. There was a marked increase in the incidence of embolism among two groups in Lister's tabulation: the older age groups and those who had an incision through the anterior abdominal wall, whatever the ultimate object of the operation was. Since diaphragmatic respiration plays a great part in maintaining circulation in the large abdominal veins, it is suggested that the inhibition of diaphragmatic respiration accounts for the comparatively high incidence of embolism following abdominal operations. The bacteriologic study of the cause of pulmonary embolism was made by Rosenow.[4] From the emboli in each of six recent fatal cases he isolated a gram-positive diplostreptococcus that resembled the pneumococcus in size, shape and grouping. A cultural study was then made of pulmonary emboli that had been preserved in solution of formaldehyde since 1925. In none of these twenty-five cases had there been septic fever; in eighteen there was an abdominal operation; twelve of the patients were less than 50 years of age; in six no operation was performed. In all but two of the twenty-five preserved emboli, Rosenow states that he found a diplostreptococcus identical with the one isolated from the series of six recent cases. With four strains of this diplococcus, attempts to produce thrombosis in laboratory animals were successful. Rosenow believes that the diplostreptococcus which he isolated is the common cause of massive thrombosis leading to pulmonary embolism, and that stasis is not a contributory factor. These studies, although dissimilar, are so interesting that they will undoubtedly attract others to undertake similar investigations.

ARE PREGNANCY AND PARTURITION NORMAL FUNCTIONS?

For some fifteen years Dr. Joseph B. De Lee has been urging the point of view that the function of child-bearing, while it may have been intended by nature at the beginning as a harmless process, has become, in the modern civilized woman, an event in which many factors may be pathologic. The topic formed the subject also of a statement presented last year before the congress held in Dublin as a part of the Coombe centenary celebration. If the ovum is considered an endoparasite with which the host must live in symbiosis for nine months, and if it is realized that the impregnated ovum brings into the body of the host blood qualities not previously there, the student of biology will understand that reactions long since recognized as partaking of pathogenicity take place in the pregnant woman. Studies of the metabolism of the pregnant woman, of her lessened resistance to some infections, for example epidemic influenza, of her increased susceptibility to some other conditions, as hyperthyroidism or goiter, indicate that her body is certainly not the same as in the nonparturient state except for the presence of the fetus. In spite of the best possible care, a large number of women still die or become permanently disabled as the result of childbirth. The estimates of obstetricians as to the incidence of severe pathologic processes in childbirth vary from 10 per cent to the statement accredited to Douglas that "the parous woman, *ipso facto,* is apt to die." If progress is to be made in the attack on the death rate of woman associated with childbirth there must be a revision of "the notorious disappreciation and disesteem of obstetrics" that exists at present.

Value of Research.—The true scientist is constantly insisting on controls. Every variable factor must be controlled if any deductions derived from the experiment are to be of value. This need for controls and the neglect of them by those engaged in clinical medicine afford an explanation of the suspicion with which the laboratory worker regards many of the deductions of his clinical colleagues.—Bigger, J. W: *Irish J. M. Sc.* 6:20 (Jan.) 1927.

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[1] Drinker, Katherine R.; Fehnel, J. W., and Marsh, M.: The Normal Excretion of Zinc in the Urine and Feces of Man, J. Biol. Chem. **72:** 375 (March) 1927.

[2] Batchelor, R. P.; Fehnel, J. W.; Thomson, R. M., and Drinker, Katherine R.: A Clinical and Laboratory Investigation of the Effect of Metallic Zinc, of Zinc Oxide, and of Zinc Sulphide upon the Health of Workmen, J. Indust. Hyg. **8:** 322 (Aug.) 1926.

[3] Lister, W. A.: A Statistical Investigation into the Causation of Pulmonary Embolism Following Operation, Lancet **1:** 111 (Jan. 15) 1927.

[4] Rosenow, E. C.: A Bacteriologic Study of Pulmonary Embolism, J. Infect. Dis. **40:** 389 (March) 1927.

PROCEEDINGS OF THE WASHINGTON SESSION

MINUTES OF THE SEVENTY-EIGHTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT WASHINGTON, D. C., MAY 16-20, 1927

HOUSE OF DELEGATES

First Meeting—Monday Morning, May 16

The House of Delegates convened, and was called to order by the Speaker, Dr Fred C Warnshuis, Michigan

ADDRESSES OF EXECUTIVE OFFICERS

Address of the Speaker, Dr. F. C. Warnshuis

Members of the House of Delegates

Convened in annual session in the capital of our nation, it occurs to your Speaker that it would be consistent and characteristic if we caused our first official act of this session to be recorded as one in which we convey to the President and through him to the people of this nation a message of greeting and expression of esteem To that end do I submit for your approval, if so disposed, the following message

Honorable Calvin Coolidge,
President of the United States

The American Medical Association, representing 94 000 doctors of medicine convened in annual session, extends cordial greetings to you We affirm anew the fundamental principles and objects of our profession We subscribe again our willingness to contribute our services for accredited humanitarian purposes We pledge a continuance of persistent efforts to unfold the unknown laws of physiology and hygiene and to uncover the causative factors of disease

We are ever ready to apply approved scientific principles and practices to enhance the health of our people that their vocational and social pursuits may be attended by a minimum of disease and physical incapacity

In this spirit we convey to you, Mr President, our greetings and felicitations

The American Medical Association,
Olin West, Secretary

In opening your deliberations, your Speaker desires to enumerate anew certain policies that govern our official activities

REFERENCE COMMITTEES

In making appointments for reference committees, a studied impartial attempt is made to accord recognition to every state of our federacy Selection is further determined by individual experience in the House as also a delegate's familiarity with the subject matter customarily referred to the committee to which appointment is made Appointments are determined thirty days previous to our session and selected from certified lists of delegates submitted by our national secretary The lists of delegates of many state organizations were incomplete because of the lateness of state meetings Your Speaker had no other alternative than to make appointments from these incomplete lists In making the announcement of committees this morning I would state that vacancies and absences have been filled by selection of delegates from the amended lists on file May 15 This comment is tendered solely for informative purposes

Again do I urge that reference committees arrange their hearings to meet the convenience of delegates, and that the hour and place of meetings be given ample publicity It is further recommended that in considering the business referred to them and in the formulation of reports, policies and recommendations, reference committees avail themselves of the information that is at hand from constituted councils, bureaus, special committees and officers of our Association Your Speaker assures you that Trustees will gladly respond to the request or call of any committee to supply information on matters in which the Trustees have officially taken action or in which they have recorded opinions and their reasons therefor It will be apparent that in securing these advisory services, committees will be fully informed and their recommendations will reflect the fullest possible consideration of all obtainable facts Conflicting or complicating recommendations will thus be minimized

Delegates are advised to attend and present their arguments, petitions and discussions on all matters of constituent or personal interest and concern at committee hearings It is greatly to be desired that, when reports are rendered to the House, the discussion be confined to fundamentals so far as that is possible

ELECTIONS

An amendment will be presented to you to change our order of business of the Thursday afternoon session so that our annual elections will be the last order of business This amendment is forthcoming by reason of the following observation It has been noted that as soon as the election is over, many delegates leave the floor of the House and depart for home Many important reference committee reports, section requests and recommendations are still to be received and action taken On two occasions barely a quorum remained, and on one occasion hasty and ill advised official action was narrowly averted To circumvent such a possibility is the purpose of the amendment that is tendered

SURVEY OF NURSING EDUCATION AND SERVICES

In my Speaker's address at the St Louis Session in 1922, I pointed out the need of a study of the problem of nursing education and nursing service The recommendation was concurred in by the reference committee and resulted in referring this problem to our Council on Medical Education and Hospitals That council appointed a special subcommittee to consider this problem In that council's annual report, rendered the following year in San Francisco, a brief reference to the subcommittee's activities was appended and approved by the House in a blanket adoption of the Council's annual report In the Chicago and Atlantic City sessions no consideration was accorded to this subject At the Dallas session, during one of the sessions of the House, your Speaker drew attention to what seemed to be a forgetfulness of this important question and suggested that a resolution be introduced calling for a new committee that would bring in a definite report Dr Harris of New York gave notice of such a resolution and did introduce a resolution calling for the appointment of a new committee by the President and Trustees and assigning this problem to that committee with instructions to report at this session The Board of Trustees did appoint such a committee, and at one of the regular sessions of the board the committee was enlarged to seven on your Speaker's representation that there should be on that committee members who were in active community and bedside practice and not connected with large hospitals and teaching institutions, so that in the committee's deliberations the problem of the general practitioner might be clearly set forth That committee is now headed by Dr Van Etten of New York as chairman A few months ago it was unexpectedly evidenced that the first committee, appointed by the Council on Medical Education and Hospitals, was functioning but through misunderstanding had not made any report to the Trustees or House of Delegates It is unfortunate that we are now confronted with two committees considering the same subject, but working at somewhat cross-purposes and submitting two reports for your consideration I desire to reiterate that the situation is not resultant from lack of good faith and such implication should not be inferred The entire conflict arose from a misunderstanding I am quite sure that the good judgment of the reference committee will clarify the condition

Your Speaker recommends anew that, in dealing with this problem, all surveys, studies and recommendations shall emanate from the American Medical Association and not from any newly constituted independent organization. The problem of nursing education and service is a vital one to the public and to every physician. It is a problem in which we should exert and evidence opinions and recommendations and accomplish their institution. It is a service we owe to the public, to hospitals, to training schools and to our fellow members. The American Medical Association should, yea must, undertake its solution and formulate the resultant principles when they are announced. We become negligent and shirk our responsibilities and forfeit guiding direction if we delegate the task to others.

STANDARDS FOR SURGEONS

I desire to emphasize that the American Medical Association points with pride and justly boasts that it is the first to seek out conditions that lead to reprehensible medical practices. It has continuously sought to maintain its house in order and to anticipate undesirable tendencies for the purpose of circumventing untoward actualities.

The American Medical Association comprises 94,000 of the 140,000 physicians in our profession. In the present trend of events, conditions exist wherein all trades and professions are confronted with enticements to yield to commercial and selfish inducements and to ignore high and lofty principles. Never has it been so easy to go astray. It would not be surprising if the medical profession, in common with all other professions and trades, should reveal 1 or even 2 per cent of its number as having yielded to impinging temptations. Representing 150,000 physicians, 1 per cent would constitute 1,500 physicians, a not inconsequential number. For their omissions and commissions the profession as a whole may be judged and appraised by the unthinking and intolerant. Let us, however, take cognizance of that condition and tendency, increasing our vigilance and action to minimize it to its lowest possible extent.

It is on that premise that your Speaker is constrained to direct your attention to what is more and more becoming a serious problem and on which the public is becoming insistent for enlightenment. I refer to what are or shall be the qualifications and requirements for a man to be classified as a capable, competent surgeon. Under our plan of medical education, by reason of the tremendous increase in the number of all kinds and types of hospitals, because of perfected aseptic methods, and lastly because of the outstanding achievements that can be attained by surgical methods in the hands of competent, experienced surgeons, there is evidence of ill advised, poor and unskilled surgical work being done by undertrained, incompetent men. Hospital boards in smaller hospitals are not in control of the situation, unsupervised private so-called hospitals exist, and the public will suffer unless we institute measures by which to formulate standards that may be employed. Visits to the operating rooms and wards of hospitals and clinics reveal increasing evidence and incidents of ill advised, incompetent surgical work. This is not a general broad indictment. It is a citation of conditions that may expand with potential reprehensible possibilities.

As an association we have assumed and acquitted ourselves in the problem of standardizing our medical colleges. We have appraised and classified these colleges. We have surveyed and designated hospitals where satisfactory intern training is accorded. We have exposed and continue to expose therapeutic fraud and misrepresentation. We have given publicity to the quack and the charlatan and uncovered their methods. Within the year we have undertaken to pass approval on all electrical and physical apparatus in order that dependable, efficient apparatus may be identified. We have outlined certain requirements and standards of fracture treatment. These and similar reforms have received our attention and we are justly proud of the achievements recorded. Has not then the time arrived and are we not obligated, as America's highest authority, to whom the public rightly appeals for guidance and advice, to solve this one momentous question as to the requirements, qualifications and standards that are basic and essential ere one may hold forth as being a capable, dependable, properly trained surgeon and to formulate a means whereby the public may make such identification? I myself believe that however small the evil may be now is the time to dominate the situation. Sincerely, therefore, does your Speaker recommend and urge that by proper action you authorize the appointment of a Commission of Seven to whom this question and problem shall be referred with instructions that a preliminary report be submitted at our next annual session.

HOSPITAL LEGISLATION

All types of buildings have been and are being converted into so-called hospitals. All types of hospital administrative supervision prevail or are wholly lacking. It is not uncommon to find the quality of professional service rendered in these so-called hospitals to be of mediocre or poor standard. Doctors denied admission by standardized hospitals, or whose work is limited in such institutions because of incompetence, induce patients to enter these unapproved hospitals, which are frequently hospitals in name only. It is quite apparent that it is our duty to concern ourselves with this menacing state of affairs. The public is seeking relief from the existent conditions.

Your Speaker recommends that suitable action be taken that will instruct our Bureau of Legal Medicine to draft a bill that can be caused by state organizations to be introduced in their state legislature whereby the standards of hospitals will be outlined, administrative and staff requirements be specified, and supervisory inspection and control instituted. State regulation and license of hospitals is requisite to obviate the present conditions that are expanding, and such action can in no way be construed as inducive to state control of medical practice in the form of state medicine; for we as physicians purpose to formulate the scope and degree of licensiate limitations and specifications.

RESPONSIBILITY OF DELEGATES

It is only proper that attention be called to the responsibility that is invested in each individual delegate. This House is the legislative and administrative body of our great Association. Collectively we reflect the American medical profession and formulate the opinions, policies, activities and pronouncements of American physicians that influence, sway and enlighten the public. Individually we represent the members who form the constituency of the state organization that delegates this trust to us. Acquittal of that trust can be recorded only when a delegate so perceives his obligation and responsibility. Individualism, personal foibles, fancies, likes and dislikes that conflict with the instructions and wishes of your state membership must be subjugated and give way to broad judgment and mature opinions. Personal ambitions and selfish motives reflected in discussion, argument, resolution or vote have no place in these deliberative sessions. The ideals of service, the welfare of all, the absence of sectional communism and the ever recorded desire and zeal to accord to each and every question a persistent and evidenced expression of determination that reflects open mindedness, fairness and the welfare of all should therefore be evidenced by each delegate. In setting forth such a code no implication or accusation is implied or hinted, nor do I convey that other sessions have presented reasons for the submission of these recommendations. I simply seek to state anew the spirit and method that will evoke commendation, command respect and enhance our prestige, individually and collectively, and cause this House of Delegates to hold the confidence of the nation.

CONCLUSION

Finally, please permit me to convey, so far as words can convey or voice express, my sincere and profound appreciation for being permitted to serve you as your presiding officer. More than ever I am deeply moved by this evidenced confidence that you repose in me. More than ever I am imbued with a firm determination to accord to each delegate and this House as a whole unlimited fairness in rulings, and the widest, consistent opportunities for your deliberative and legislative labors, and to reflect compliance with your desires and commands; for I construe myself to be your servant. In that spirit I will strive to merit your approval and exemplify my thanks.

Address of President Wendell C. Phillips

Mr. Speaker, Members of the House of Delegates, and Ladies and Gentlemen:

In closing an administration of the presidency of our Association, it would seem proper that the outgoing president should render an accounting of his stewardship and to outline his ideas as to the Association's duty and prerogatives in promoting the progress of medicine in all its relations.

In my case this date has larger significance, inasmuch as it terminates a period of ten years of official activity in the Association's affairs. During these years we have passed through several periods of stress. We measured up to our responsibilities in the World War; we have solved many problems of dispute regarding policies; we have overcome every measure of obstructive tactics; we have made changes in the personnel of our administrative departments, and we have inaugurated outstanding movements of progress. Furthermore, we have made great progress in every department of our Association's activities. This is particularly noticeable in the marvelous success of our publications, from both a literary and a financial standpoint. This is evidenced by the remarkable growth of The Journal and Hygeia.

It is a great pleasure to pay tribute to the able and faithful men who are charged with the business, educational, promotional and literary aspects of our organization.

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The editor of your journals, Dr. Morris Fishbein, trained to his position by long association with our honored editor emeritus, Dr. George H. Simmons, has abundantly proved the wisdom of his appointment to this great office. His brilliant mind, his versatility, his ability to make contacts with various great publications and literary promoters, has proved of inestimable value in establishing our Association as the fountain head of information in the realm of medicine, hygiene, sanitation and public health.

The ability of your business manager, Mr. Will C. Braun, is well established and has done much to maintain the remarkable financial status of our Association. No better illustration could be given than to state that through the advertising income the Association has been able to carry on the mass of work that has been attempted for the benefit of the medical profession and for the public good.

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During the year it has been my pleasure and privilege to address many medical and lay organizations throughout the country, and in these addresses I have never failed to give emphasis to the importance of bestowing the leadership of all health movements on the shoulders of scientifically trained medical men. I have urged and pleaded for the dignity and leadership of the qualified family practitioner of medicine. I have urged that all periodic health examinations of every individual should be recorded and filed in the offices of the general practitioners of medicine in every locality. I have also urged that heads of industrial organizations who feel the necessity of such examinations should arrange to have these examinations conducted by the personal physician of the employee.

CONFERENCE ON PUBLIC HEALTH

For several years I have been impressed with the importance of some sort of a "get-together" conference of all national, voluntary and state health organizations for the purpose of discussing the great health problems of our country, the purpose being, first, the development of mutual and better understanding; secondly, team work. The pros and cons of several plans were discussed by the Board of Trustees, resulting finally in an invitation conference of these health organizations, held under the auspices of our officers and trustees at Association headquarters on March 24 and 25, 1927.

It was my pleasure and privilege to preside at this health conference. The program stressed three important topics: first, the relation of the physician to public health; second, public health education, and, third, some phases of the economics of public health. Some quotations from my opening address before this conference would seem to be appropriate for your consideration:

1. We should so construct and conserve our health problems and policies that we may convince the public, which really pays the bills, that no fragments of opportunity are lost or misused.

2. The promulgation of the principles of preventive medicine and health conservation of the public is not a matter of sentiment but of business. Our great industrial organizations succeed because they are founded on sound business principles. This task of ours may be likened to a great national industrial undertaking, and it will involve the expenditure of many millions of dollars. Are we meeting the good business requirements of our great health education cause? Are we building on the broadest, wisest and most comprehensive foundation? Are we sure that our project, even thus far, is being conducted without duplication of efforts or duplication of the expenditure of money?

The address also stressed the preeminent position which should be given to the physician, as the only individual in the community with adequate basic knowledge on which to act in health matters.

The address further recommended that some form of survey should be inaugurated in a manner sufficiently thorough in its ramifications to make positive a basis of knowledge which would serve to guide our future activities. Such a survey should not only cover the work of all the organizations listed under the banner of preventive medicine and health conservation; it should include organized medicine as represented by the American Medical Association and any other medical organizations that attempt public health work; but the survey I have in mind would fail unless it should give full consideration to humanity and humanity's needs. It is my sincere conviction that the program of health education is sufficiently developed to warrant the following statements:

The medical profession should throw off its mask of reticence and its shrinking attitude toward reasonable publicity concerning health education. Professional policies narrowly conceived can never successfully oppose the rightful interests of the public. It is time to strike the shackles not only from the shrinking attitude of the medical profession toward the public espousal of educational programs but also from its attitude toward the lay press, the radio and great assemblies of truth-seeking people. The physician has no right to conceal from nonmedical readers the great body of news of the highest importance which is his to communicate.

Nearly one hundred health organizations responded to the invitation and were represented at the health conference. This included about thirty-two voluntary health organizations, seventeen state boards or other official agencies, four welfare departments of life insurance companies, as well as the American Medical Association and various medical schools and publications. Altogether, the spirit of the conference was excellent. The papers were efficient and forceful, and those in attendance evinced a strong desire for cooperation. Full stress was given to the important position which the medical man should occupy in all promotive activities of health organizations. In view of the leadership which should be maintained by the medical profession in matters of personal and community health education, and in view of an apparent need of information on the part of a considerable proportion of the physicians of our country, I recommend that the House of Delegates take into serious consideration the question of field health education work, to be promoted and financed by the Association. It is to be hoped that such a movement will eventuate in a department of field activities through which every county society unit of the Association may be organized and become efficient leaders in all local health activities.

In my last year's address I recommended that a survey of public health activities should be inaugurated and financed by the Association. This recommendation was adopted by the House of Delegates, but so far has not been undertaken by the Board of Trustees. I now realize that such a survey properly conducted might involve both time and a good deal of expense; that it should be comprehensive and exhaustive. Such a survey might well be undertaken either as a combination of effort of all health organizations, or as a public function service of some one of our foundations.

I now recommend that the trustees be authorized to use their effort to bring about such a survey. I further recommend that in view of the success of the first health conference, the House of Delegates by vote, both favor and authorize the board of trustees to call such a conference annually for at least another two years.

Health education programs, properly conceived, may of necessity demand legitimate changes in our more or less orthodox views of our attitude toward publicity. The sentiment expressed in my address to the health conference regarding this matter has resulted in wide editorial comment and approval on the part of the leading newspapers of the country.

It may become necessary and advisable to modify some narrow code restrictions of constituent county and state societies in order to meet the rightful educational needs of the public. It is our plain duty to formulate the modes and methods of medical publicity to conform with legitimate health educational programs. One of these demands is that the listener or reader shall know the source of his information. Our radio authorities insist that the name of the broadcaster be known. This is true in business, in politics, in religion and in science, and it should be no less so in health education of the public. A proper system of censorship should be inaugurated to safeguard our publicity problems. Such censorship should emanate from organized medicine. In more general matters whereby great publicity is needed, it would seem wise that the censorship should be that of the headquarters of the American Medical Association. In state matters the censorship should be charged to the responsibility of state medical societies, while in counties and local communities the county societies should assume the responsibility. In no sense should such censorship be permitted to interfere with the legitimate publicity requirements which the subject demands. Nevertheless, individual physicians should be cautioned against personal aggrandizement, or seeking to advance their own personal interests.

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Under the caption "Shall Congress have Power of Life and Death over the Sick?" a group of medical men, including the Executive Committee of the Association for the Protection of Constitutional Rights, published an article which to me seems worthy of serious consideration not only by this House of Delegates but also by the medical profession at large. I venture to quote a few pertinent statements from this article, and I recommend that the entire article be considered by a reference committee of the House. The article, published in a recent issue of THE JOURNAL, calls attention to a recent decision of the Supreme Court by a majority of five to four "that Congress has power to limit the amount of whisky which a physician may prescribe for a patient to one pint in ten days, irrespective of the physician's opinion as to the patient's needs. . . . Under these decisions . . . Congress has power to decide what is and what is not medicine; Congress may fix by legislative fiat the dosage of remedies contained in the United States Pharmacopeia. And under these decisions, Congress may penalize any physician who dares to oppose his trained judgment to the fiat of Congress. . . .

"Not even the Middle Ages may boast of a greater triumph of legislative imperialism over the methods and achievements of science. Congress included medical restrictions in the Volstead Act in contravention of a promise to the nation by the Senate Judiciary Committee that the use of alcohol as a medicine would not be interfered with. . . .

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"There are features, too, of the majority opinion of the Supreme Court which it is difficult to reconcile with the facts:

"That Mr. Justice Brandeis, in writing the opinion, is in error as to the attitude of the American Medical Association toward the medical restrictions of the Volstead Act" is clearly shown in the brief which the American Medical Association filed in this case as *amicus curiae*, challenging the conclusion which is drawn from the 1917 resolution of this House and vigorously attacking the act now under review as arbitrary and unreasonable. In 1924 this House adopted a resolution expressing its disapproval of those portions of the act "which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally. . . .

"The fact that Congress has arrogated to itself the functions of the medical profession and the pharmacologist in the enabling acts for the enforcement of the Eighteenth Amendment and that the Supreme Court has sustained Congress in the usurpation of these functions holds a serious threat to the public health.

"No one is able to foresee to what extremes of restrictive legislation Congress may be driven by uplifters, professional reformers, cultists and fanatics, once they gain the power, or what drug or therapeutic procedure, professional privilege or constitutional rights may fall under the ban."

The American Association for Medical Progress says in a recent circular letter, "Of the bills designed to regulate the practice of the healing art there are about twenty which, if passed, would place the 'opinions' of untrained men and women on a par with the findings of impersonal research. . . .

"The individual members of the profession must awaken to a realization of their responsibilities and instruct their representatives in county, state and national organizations to keep watch for, and to attack, every attempt, through federal or state legislation, to stay the march of medical progress, to hamper public health administration, and to regulate the use and dosage of accepted remedies."

Your attention has previously been called to numerous arbitrary restrictions imposed on the medical profession by unncessary restrictive enforcement regulations regarding medicinal agents. I need only mention the statement on the back of a recent issue of the Volstead prescription book; i. e., "You are personally responsible for this book. It will not be replaced if lost and failure to properly safeguard it will

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"In the minority opinion, . . . Mr. Justice Sutherland, citing the case of *Linder* v. *United States*, in which the Supreme Court decided that 'direct control of medical practice in the states is beyond the power of the federal government,' concludes that 'Congress, therefore, cannot directly restrict the professional judgment of the physician or interfere with its free exercise in the treatment of disease. Whatever power exists in that respect belongs to the state exclusively.' . . .

"There are features, too, of the majority opinion of the Supreme Court which it is difficult to reconcile with the facts:

"That Mr. Justice Brandeis, in writing the opinion, is in error as to the attitude of the American Medical Association toward the medical restrictions of the Volstead Act" is clearly shown in the brief which the American Medical Association filed in this case as *amicus curiae*, challenging the conclusion which is drawn from the 1917 resolution of this House and vigorously attacking the act now under review as arbitrary and unreasonable. In 1924 this House adopted a resolution expressing its disapproval of those portions of the act "which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally. . . .

"The fact that Congress has arrogated to itself the functions of the medical profession and the pharmacologist in the enabling acts for the enforcement of the Eighteenth Amendment and that the Supreme Court has sustained Congress in the usurpation of these functions holds a serious threat to the public health.

"No one is able to foresee to what extremes of restrictive legislation Congress may be driven by uplifters, professional reformers, cultists and fanatics, once they gain the power, or what drug or therapeutic procedure, professional privilege or constitutional rights may fall under the ban."

The American Association for Medical Progress says in a recent circular letter, "Of the bills designed to regulate the practice of the healing art there are about twenty which, if passed, would place the 'opinions' of untrained men and women on a par with the findings of impersonal research. . . .

"The individual members of the profession must awaken to a realization of their responsibilities and instruct their representatives in county, state and national organizations to keep watch for, and to attack, every attempt, through federal or state legislation, to stay the march of medical progress, to hamper public health administration, and to regulate the use and dosage of accepted remedies."

Your attention has previously been called to numerous arbitrary restrictions imposed on the medical profession by unnecessary restrictive enforcement regulations regarding medicinal agents. I need only mention the statement on the back of a recent issue of the Volstead prescription book; i. e., "You are personally responsible for this book. It will not be replaced if lost and failure to properly safeguard it will result in revocation of your permit." Such a statement may be characterized only as insulting to an honored profession.

This is a serious subject, on which this House has spoken in no uncertain manner and regarding which individual opinions may vary; but individual opinions and convictions should not have a place or be given publicity as representing the majority opinion of the members of the American medical profession.

Address of President-Elect Jabez N. Jackson

Mr. Speaker and Members of the House of Delegates:

I desire to call to your attention an action recently taken by your Board of Trustees which I consider of much importance and which, in my judgment, should have the added endorsement of this body. I refer to a resolution passed by the Board calling on the Council on Medical Education and Hospitals to make mandatory a course of instruction in the "Principles of Medical Ethics" in every medical college whose standards merit its recognition.

Our profession occupies a rather peculiar position among the professions and avocations of men. More than any other it rests fundamentally on the base of faith. Individually our relative ability as physicians is not susceptible of obvious proof. The merchant exhibits his wares on the counter and shelf, and since they are material things the prospective purchaser can judge adequately for himself of the quality and of the price. The realtor and manufacturer have like advantages. The lawyer in his arguments and briefs proves his knowledge of law and his powers of logic. The preacher in the pulpit proclaims his teachings in words of oratory which please our ears or persuade our minds. The ability of a medical man, however, cannot be proved by words of logic or eloquence, nor displayed in any material way. The logic of our science cannot be judged by the mind untrained. We must be accepted or rejected, therefore, by our ability to influence the faith of our followers. The consequences of medical treatment are not necessarily proof whether good or bad. Even in surgery, wherein at least part of our skill is manifest, the judgment of relative capacity cannot be made by one who has not had adequate opportunity for comparative observation; and judgment whether wise or unwise is difficult enough for the expert in a matter in which so many variables enter. Trust and faith become, hence, the necessary foundations of our profession.

In consequence, it is obvious that to merit the faith of man and win for our profession his confidence and respect certain conditions are necessary. Foremost, of course, must be the eternal pursuit of knowledge which shall enable one actually to do the best that is known to be done. In this respect our progress has been most creditable in the past generation. Our science, which is our knowledge, has made marvelous advancement. Our educational avenues through which this knowledge is disseminated, in the medical schools and in medical societies, have been highly organized. But, as Polak aptly remarks, "Science satisfies the doctor, but Art pleases the patient." Art is found in the practical application of the knowledge of science to the needs of the sick. And herein enters the complication of human relations. And in human relations enters ethics.

The "Principles of Ethics" as promulgated by our association is an attempt to outline the pathway for conduct in human relationships which shall make him who follows it worthy of that faith and trust on which our real standing must rest. It is a religion which, if understood, proposes to make a doctor a true Christian in the discharge of his duties to his fellow man and in the observation of his relation to his professional co-laborer. Knowledge alone is not enough. A scholar may yet be a scoundrel. One may be wise and yet not worthy. Education and character must go hand in hand if the ideals of our profession are to be maintained. Is it not therefore obvious that our medical educational system should develop character as well as impart scientific knowledge?

In the older days when there was perhaps little of actual scientific knowledge to be acquired, the matter of human relationship was much considered. In the absorbing demands of our rushing scientific advances have we not perhaps lost sight a little of the side of ethics?

On the other hand, we are living today in an age of unequaled commercial progress. Machinery and organization have brought about a new civilization, a civilization vastly more complicated, vastly more insidious. It behooves our profession to consider most carefully its relations to these new problems.

Again, Truth has always its enemies. The idealism of medicine ofttimes seems difficult for even our well wishers to understand. Our efforts for the welfare of people even at the expense of our own selfish interests are frequently misunderstood. Our purposes are even misrepresented by our enemies. The point of attack is usually our ethics, interpreted by such as a secret code for self protection and selfish advancement. Our opposition to ignorance and charlatanism is attributed to mercenary envy. We do not advertise as does the business man, and he cannot understand why.

We have a published pamphlet on the "Principles of Medical Ethics," and yet even this rudimentary presentation has probably not been read by many doctors and by practically none of the laity. Yet on it rests the eternal fitness of our profession. It is my firm conviction, therefore, that a comprehensive exposition of ethics should be undertaken, first in a thorough course of instruction to our oncoming young men in medicine right at the onset of their career and the essentials of character inspired equally with the infusion of scientific knowledge. Thus inspired, we should have a new generation of worthier men to honor a worthy profession. Furthermore, when doctors themselves more fully understand our principles they will be better prepared to represent our profession intelligently and to defend its ideals.

Finally, I believe that a more comprehensive and explanatory manual should be composed which will translate into the language of the laity a real understanding, and that by word and in print its arguments should be carried to the people. Its composition should probably be referred to the Judicial Council.

(The remaining minutes of the Monday morning meeting will appear next week.)

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ARKANSAS

State Medical Election.—At the fifty-second annual session of the Arkansas Medical Society, Little Rock, Dr. Robert H. T. Mann, Texarkana, was elected president-elect; Drs. Homer Scott, Little Rock, Joseph B. Wharton, El Dorado, and Oscar J. T. Johnston, Batesville, were elected vice presidents, and Royal J. Calcote and William R. Bathurst, both of Little Rock, treasurer and secretary, respectively. Drs. William W. Verser, Harrisburg, and Laurence L. Purifoy, El Dorado, were the new councilors elected. The president for this year is Dr. Henry Thibault, Scott. The next annual meeting will be at El Dorado.

FLORIDA

Bills Introduced.—House bill J. R. 690 provides for the appointment of a commission to inquire into the need of a sanatorium for the care and treatment of persons with mental disorders. House bill 404 would enlarge the powers of the bureau of vital statistics by providing for the registration with the bureau of marriages and divorces. Senate bill 401 and house bill 803 would prohibit the use of arsenic or any of its derivatives as a fertilizer or spray on bearing citrus trees; it would also prohibit the sale of citrus fruit containing any arsenic. House bill 546 would provide for the establishment, location and type of a state sanatorium for tuberculous individuals.

Suwannee River Society and Others.—Dr. Henry Mason Smith, Tampa, addressed the Pasco-Hernando-Citrus County Medical Society, recently, on "Organized Medicine," and Dr. Roscoe C. Hubbard, Tampa, on "Value of Maintaining

Membership in County and State Medical Societies."——The Columbia, Hamilton, Madison and Suwannee county medical societies recently met at Stumble Inn on the banks of the Suwannee River; a motion was carried to change the name of the joint society to the Suwannee River Medical Society. Among the speakers were Drs. Henry F. Airth, Live Oak; Will C. White, Live Oak, and Robert B. Harkness, Leonidas M. Anderson and Thomas H. Bates, all of Lake City.——The Duval County Medical Society held its annual dinner recently at the George Washington Hotel, Jacksonville. The guests were the superintendents of the local hospitals and presidents of the component county medical societies of the state; Dr. Edward Starr Judd, Rochester, Minn., the guest of honor, gave an address on "Surgery of the Biliary Passages"; Dr. Louie Limbaugh, the president, presided.——Dr. George C. Tillman, Gainsville, was elected president of the reorganized Central Florida Medical Society in March; no physicians can be members who are not members of the county medical society. The *Florida State Medical Journal* was designated as the official journal; meetings will be held twice a year, the next in October, at Gainesville.——Mr. S. Ross Campbell of Philadelphia entertained about 500 members of the Florida Medical Association at a banquet at the new Palm Beach Hotel, April 5.

ILLINOIS

Bill Introduced.—Senate bill 403 would regulate the sterilization of criminals.

Health Officer Resigns.—Dr. Raymond V. Brokaw, for three years city health officer of Springfield, has resigned, effective, June 1, it is reported.

Adams County's Annual Picnic.—The annual picnic of the Adams County Medical Society will be at Camp Irwin on the Mississippi River, a few miles south of Quincy, June 16; a picnic dinner will be served at noon, and the society invites every ethical physician in central western Illinois, southeastern Iowa and northeastern Missouri to be its guest on this occasion. There will be addresses by Dr. John R. Neal, Springfield, chairman, legislative committee, Illinois State Medical Society, on "Legislative Problems," and by Dr. Edwin G. C. Williams, Danville, on "Professional Collections."

Society News.—Dr. William H. Bishop was elected president of the Elgin Physicians' Club, May 9, and Dr. Milton Jacobs, secretary. Dr. Solomon Strouse, Chicago, addressed this annual meeting on "Diabetes."——At a meeting of the Rock Island County Medical Society, Fort Armstrong, May 10, Dr. Robert W. Keeton, Chicago, gave an address on "Feeding the Sick in Infections." There was a round table discussion on the control of obesity.——A banquet will be given, June 1, at the LeClaire Hotel, Moline, during the session of the state medical society, for the alumni of Washington University, all members of which are invited to attend.

Chicago

Hospital News.—The U. S. Marine Hospital, 4141 Clarendon Avenue, is being remodeled at a cost of $184,000.——Leroy Millner has been appointed superintendent of the Municipal Tuberculosis Sanitarium, 5601 North Crawford Avenue.——The medical staff of the Garfield Park Hospital has been reorganized.

Physician Sentenced.—William Blanchard was arraigned before Judge Carpenter, May 6, and sentenced to the federal prison at Leavenworth for one year and a day for violation of the Harrison Narcotic Law. This is said to have been the sixth time that Dr. Blanchard has been arraigned on narcotic charges; he came to this country from the Franco-Prussian border, and is recorded as a graduate of the National Medical University of Chicago in 1905; the assistant district attorney announced that steps would be taken to have him deported.

Faculty Changes at University of Chicago.—Dr. Frederic W. Burcky, clinical instructor in medicine, Rush Medical College, has been granted a leave of absence for one year from April 1 on account of ill health; Dr. Leo C. Clowes, clinical associate in medicine, Rush Medical College, resigned, February 10; Dr. Paul C. Hodges, associate professor of roentgenology, Peking Union Medical College, China, has been appointed professor of roentgenology in the department of medicine and roentgenologist to the university hospitals for thirteen months from June 1; Dr. Louis Bothman has been appointed part-time clinical instructor in ophthalmology in the department of surgery for two years from March 1; Dr. Elvin M. Hartlett has been appointed instructor in ophthalmology for sixteen months from March 1; Dr. Franklin C. McLean has been appointed chairman of the department of medicine until June 30, 1927, and then for three years.

Dedication Week at Northwestern University.—A program has been arranged for the dedication, June 13-17, of the new buildings of Northwestern University Medical School on the McKinlock Campus, East Chicago Avenue near the lake. There will be alumni clinics in all the departments of the Montgomery Ward Memorial in the mornings. The Archibald Church Library and the Frederick Robert Zeit Museum of Pathology will be dedicated in the afternoon, June 15, and oil portraits of the founders of the medical school—Nathan Smith Davis, William H. Byford, John H. Hollister, Ralph N. Isham and Davis Rutter—will be unveiled; also busts of Edmund Andrews, Robert L. Rea and others, and oil portraits of John Harper Long and Frank Billings. The alumni dinner will be that evening at the Congress Hotel. On the afternoon of June 16, the Robert L. Rea professor of anatomy will be installed, and the James A. Patten Research Laboratories of Bacteriology dedicated. In the evening Dr. Hugh T. Patrick will address a special convocation in the John B. Murphy Memorial Auditorium, and the following evening former governor Frank O. Lowden will speak at the general exercises in dedication of all the new buildings. There will also be special dedication programs for the new law and commerce schools of Northwestern, which are adjacent to the medical and dental schools on the McKinlock Campus.

Report of Community Trust.—The eleventh annual report of the Chicago Community Trust, presented May 11, indicates that it is one of the most successful community trusts in the country. Funds in hand or assured amount to nearly $5,000,000, and funds and property valued at $2,400,000 are now being applied to charitable use. The income distributed last year for charitable purposes exceeded $68,000, in addition to properties used for charitable purposes which yield no income. Fifty-one different institutions received a part of the funds distributed. Five gifts and bequests were reported: one for $450,000, one for $230,000, one for $30,750 and two for $10,000 each. The Community Trust will eventually receive from wills reported during the year not less than $2,000,000, and probably much more. An executive committee and an advisory council comprising some of the best known business men of Chicago manage the funds, of which there are three classes: (1) funds designated for general purposes, the particular institutions to be selected by the Community Trust committee; (2) funds in which a number of institutions are named; the income to be distributed in such proportions as the trust committee shall determine; (3) funds which are entirely undesignated, the use of the income of which is determined by the Community Trust Committee. There are said to be about sixty community trusts in the United States, the Cleveland Foundation being the first established. The aggregate of funds held in trust by all of the community trusts and available for charitable use is estimated at $14,000,000, while the aggregate in prospect for future use is estimated at $150,000,000. Clifford W. Barnes is chairman of the executive committee of the Chicago Community Trust, and Mr. Frank D. Loomis, 10 South LaSalle Street, secretary; the telephone is Franklin 3356.

IOWA

Professor Myers Goes to Western Reserve.—Victor C. Myers, Ph.D., professor of biochemistry, State University of Iowa College of Medicine, has accepted the appointment as professor of biochemistry in Western Reserve University, Cleveland, and will assume his new duties in September. Dr. Myers will be consulting biochemist to the university hospitals, and will supervise the work in biochemistry at the Cleveland City Hospital. He will have facilities at the new Institute of Pathology for the special type of research which he has been conducting. Dr. Myers has been at the University of Iowa since 1924.

More Resignations at State Medical College.—Following the announcement of the resignations of three physicians at the State University of Iowa College of Medicine, Iowa City, last week, the newspapers have announced the resignations also of Dr. Don M. Griswold, head of the department of hygiene and preventive medicine, and that of Dr. Wesley E. Gatewood, associate professor of theory and practice of medicine, both of whom have been associated with the school for a number of years. The resignation of Dr. Lee W. Dean, dean of the college of medicine, was also reported. The state board of education is said to be making an investigation.

LOUISIANA

Health Department Items.—The president of the state board of health, Dr. Oscar Dowling, conferred with members of the U. S. Public Health Service, the Red Cross and other state health officers in Memphis, April 28, with regard to the flood situation.——The state board of health exhibit cars returned to New Orleans, May 2, after having visited forty-four towns in thirty-three parishes; the number of visitors to the exhibits averaged about 800 a day; 270 samples of water were examined on the trip and 831 samples of milk.

Society News.—Dr. Middleton F. Wilson, New Orleans, presented a moving picture on how biologic preparations are made before the Natchitoches Parish Medical Society at the March meeting. Dr. Oscar Dowling addressed this meeting, and invited the members to visit the exhibit of the state board of health which was touring the state and was in Natchitoches at that time.——The Orleans Parish Medical Society is sponsoring a plan to hold a "health week" in New Orleans this fall, and has appointed Dr. Paul J. Gelpi, Jr., chairman of a committee which expects to arrange plans whereby every person in the city will be provided with a physical examination.——Drs. David I. Hirsch, Monroe; Charles C. DeGravelles, Morgan City, and James Birney Guthrie, New Orleans, were elected vice presidents of the Louisiana State Medical Society at the New Orleans meeting.

Court Upholds Medical Practice Act in Fife Brothers Case.—The Supreme Court of the United States rendered a decision, May 2, holding that the medical practice act of Louisiana is constitutional. The decision was made in the case of Joseph D. Fife and Walter W. Fife, chiropractors of New Orleans, who were found guilty in 1924 of practicing medicine without a license and sentenced to jail. In the period intervening, the Fife brothers have also been sentenced to prison for contempt of court, in that they practiced chiropractic in violation of an injunction issued. The Supreme Court of the United States also ruled that the medical practice act could be enforced by a court order sentencing the brothers to prison for contempt of court in ignoring the injunction which prohibited them from practicing. The conviction of the Fife brothers on criminal charges for illegal violation of the act also was upheld.

MARYLAND

Unusual Explosion in Laundry.—A mangle in the laundry of the Springfield State Hospital, Sykesville, exploded, April 28, filling the laundry with steam and flying steel fragments, and killing one employee and injuring two others. Thirty persons were at work in the laundry when the explosion occurred. The cause has not yet been determined.

Society News.—Dr. David L. Gifford, North East, was tendered a testimonial dinner by the Cecil County Medical Society, Elkton, April 23, in honor of his fiftieth year in the practice of medicine. Dr. Gifford is a past president of the county society.——The 1912 alumni of the University of Maryland School of Medicine will hold a reunion, May 20-22, at the Emerson Hotel, Baltimore; clinics and social activities have been arranged.

Health Officers' Annual Conference.—Under the auspices of the state department of health, the annual conference of health officers will be held at the Medical Library Building, May 27-28; Dr. John S. Fulton, director, state department of health, will preside, and among the speakers will be Drs. J. Whitridge Williams, professor of obstetrics, and William H. Howell, director, School of Hygiene and Public Health, Johns Hopkins University Medical Department; Victor Cullen, superintendent, state sanatorium; Martin F. Sloan, president, Maryland Tuberculosis Association; Dr. Elmer C. Kefauver, health officer of Frederick County, and Mr. George Fox, superintendent of schools, Anne Arundel County.

Personal.—Dr. Hugh H. Young, Baltimore, has been elected an honorary member of the German Society of Urology.——Dr. Henry M. Hurd, from 1889 to 1911 superintendent of the Johns Hopkins Hospital, celebrated his eighty-fourth birthday recently; Dr. Hurd has nearly completed a history of the hospital.——Dr. Casper L. Woodbridge has returned to Baltimore from China where he was engaged in missonary work in a medical college near Nanking.——Francis M. Root, Ph.D., associate in medical entomology, School of Hygiene, Johns Hopkins University, Baltimore, sailed for Venezuela, April 27, to study mosquitoes under the auspices of the International Health Board. This is a continuation of work done two years ago in Brazil by Dr. Root. He expects to return in September.

Fire Department Runs Ambulance Service.—The April 22 meeting of the Baltimore City Medical Society in Osler Hall was given over to discussion of the emergency ambulance service of the city. The Baltimore Association of Commerce, the Baltimore Safety Council and the West Baltimore Medical Society participated in the discussion. Reports were made by committees of various associations and a resolution was adopted recommending that the mayor have $21,000 appropriated for the purchase of seven ambulances and $45,000 for maintenance each year, which is an increase of $10,000 over the former suggestion. The director of Johns Hopkins Hospital and the superintendent of the University Hospital opposed the present plan to place the ambulance service of the city under the control of designated hospitals. According to a later report, a municipal ambulance service has been established under the control of the fire department, although such action was opposed by local medical societies and the Baltimore Association of Commerce. The board of estimates appropriated $38,890 for five new ambulances, equipment and the appointment of a surgeon and twenty firemen for the operation of the system for the remainder of the year. The surgeon to be appointed by the fire board will receive a salary of $2,400; he will train the firemen selected for ambulances in first aid work, and will direct the operation of the system.

MASSACHUSETTS

Chiropractic Bill Defeated.—The house, April 21, defeated a bill which was designed to provide a board of chiropractic examiners in Massachusetts. The *Boston Medical and Surgical Journal* credits the defeat in a large part to the efforts of the committee of the state medical society under the leadership of Drs. James S. Stone and Thomas J. O'Brien.

Instruction for Reserve Officers.—Sixty-eight officers attended the winter course of instruction for the army medical department reserve at the Army and Navy Club, Boston, March 9; the subjects presented were sanitation, sanitary devices, inspections and reports by Lieut. Col. William J. L. Lyster; system of evacuation from hospital stations within the army by Major Thomas R. Goethals, medical reserve corps, and essential paper work by Capt. Herbert N. Dean, medical administrative corps.

State Medical Meeting.—The one hundred and forty-sixth annual meeting of the Massachusetts Medical Society will be at the Hotel Statler, Boston, June 6-8. Medical and surgical clinics will be held by the staffs at a number of hospitals, following which will be luncheons at several hospitals for the visiting physicians. There will be a symposium on the acute surgical abdomen, Tuesday morning, in the section on surgery, the speakers being Drs. Peer P. Johnson, Beverly; Edward P. Richardson, Boston; Kendall Emerson, Worcester; Allen O. Whipple, New York; Reginald Fitz, Boston, and John H. Gibbon, Philadelphia; and a symposium on rickets in the pediatric section by Drs. James L. Gamble, Edwin T. Wyman and John L. Morse, all of Boston. Other prominent physicians of the state will take part in the discussion of the sections. The Shattuck lecture will be Tuesday evening by Dr. Philemon E. Truesdale, Fall River, on "Group Practice," following which Dr. Timothy Leary, Boston, will discuss "Studies from the Practice of a Medical Examiner." Out-of-state speakers include also Drs. Henry G. Bugbee, New York, on "Clinical Value of Kidney Functional Tests"; Byrl R. Kirklin, Mayo Clinic, Rochester, Minn., "Efficiency and Limitations of Cholecystography"; Frank E. Adair, New York, "Treatment of Breast Cancer"; William Walter Wasson, Denver, "The Hilum of the Lung," and William L. Clark, Philadelphia, "Electrothermic Methods in Surgery." The annual discourse will be by Dr. William H. Rose, Worcester, Wednesday, 1 p. m., on "Industrial Surgery," preceding the annual dinner.

MICHIGAN

Veterinary Succeeds Layman as Health Officer.—The Bellevue *Gazette* notes that the township board, March 2, accepted the resignation of Bert Tucker as township health officer, and appointed in his place J. O. Nicholson, a local veterinarian, who is also health officer of Bellevue.

Detroit's Medical Library Opens.—The medical science department of the Detroit Public Library was formally opened, May 2, by the Wayne County Medical Society, the board of education and the Detroit Library Commission, at the new building, 625 Mullett Street, which will be used jointly by the Detroit College of Medicine and Surgery and the library Dr Carl A Hamann, dean, Western Reserve University School of Medicine, Cleveland, gave the principal address on "Importance of Medical Libraries" A public reception was held to which the civic and scientific organizations were invited Thus, there is in Detroit a medical library as part of the city public library with rare as well as modern medical books, journals and other documents The library has a large reading room, several study rooms, a large stock room and offices for the staff A committee of five from the Wayne County Medical Society acts in an advisory capacity to the librarian and the library commission

State Medical Meeting.—The one hundred and seventh annual meeting of the Michigan State Medical Society will be at Mackinac Island, June 16-18, under the presidency of Dr John B Jackson The council will meet June 15 and the house of delegates the following day at the Grand Hotel The speakers at the general sessions will be Drs Ralph Pemberton, Philadelphia, "Arthritis', Dean Lewis, Baltimore, 'History of Goiter Pathology," and Morris Fishbein, Chicago, 'Professional Vagaries." Section papers will be presented by many prominent physicians of Michigan and by Paul M Andrus, London, Ont, on "Pathology of Pulmonary Radiologic Opacities," and by I F Huddleson, of the department of animal husbandry, Michigan State College, on 'Malta Fever" Mackinac Island offers an unusual opportunity for entertainment All members who are archers are requested to bring their tackle, as Friday and Saturday afternoons have been given over to outdoor events and archery will be on the program as well as games, an archery-golf contest and a golf tournament Persons desiring to take part in these contests should address Dr. Roland G B Marsh, Tecumseh

MISSOURI

Hospital News.—A survey of health conditions in St Louis is being conducted by Dr Clarence St. Clair Drake of the American Public Health Association, under the direction of the Citizens' Committee for the promotion of St Louis health activities Among various questions to be considered will be the necessity for more hospital beds in St Louis

Students Volunteer for Relief Work.—One hundred senior students in St Louis University School of Medicine volunteered their services to the American Red Cross to assist in caring for the sick and injured persons in the flooded areas of the Mississippi Valley The offer was accepted, it is reported The students were organized into units to be sent to refugee camps, and the medical school arranged their examinations, so that this work could be undertaken The St Louis *Post Dispatch* notes that in 1918 the upper classmen of St Louis University School of Medicine volunteered to assist in the influenza epidemic, and that a few months ago more than 300 students of this school volunteered as donors for transfusion purposes for the poor of St Louis

Society News—The Missouri-Kansas Neuropsychiatric Society met at State Hospital number 2, St Joseph, April 13, cases were presented by Drs. Theodore H Romeiser, Harvey O Daniel and James H Parker, Major Edgar King, U S Army, read a paper on "Defects and Disorders, and Their Detection in the Selection of Recruits"——Dr Francis M Pottenger, Monrovia, Calif, will deliver an address in the auditorium of the St Louis County Medical Society, under the auspices of the Trudeau Club, May 31, on "Evolution of Early Tuberculosis and Its Recognition," and will conduct a clinic in the afternoon——Dr Jacob J Singer, assistant professor of clinical medicine, Washington University School of Medicine, St Louis, sails for Europe, June 17, to inspect chest clinics in various medical schools

MONTANA

Personal—Dr Albert P O'Leary has been elected mayor of Big Timber——Dr Thomas F Walker has been reelected county health officer at Great Falls for a term of two years ——Dr Byron L Pampel, Livingston, has been elected president of the state board of health, and Dr George M Jennings, Missoula, vice president——Dr Wyman G Hough, Malta, was recently appointed county health officer and county physician of Phillips County, a case of Rocky Mountain spotted fever was recently reported at Phillips County, the third case in the history of the county

State to Breed Tick Parasites—Governor Erickson approved a bill, March 16, appropriating $60,000 for the erection of a laboratory at Hamilton to be used for the study of Rocky Mountain spotted fever According to *Science*, the state has appropriated about $25,000 a year for two years to carry on this work, $10 000 of which is for the breeding, study and colonizing of a tick parasite recently introduced into this country from France by Dr S Burt Wolbach of the Medical School of Harvard University, Boston The Montana laboratory will provide facilities for rearing large numbers of infected and noninfected ticks, and for the care of a large number of wild rodents Work on spotted fever in the state is being conducted by the state board of entomology, cooperating with the U S Public Health Service The federal government is occupied now chiefly with work on a vaccine made from infected ticks by Spencer and Parker, and used last year on about a thousand persons with encouraging results The state board of entomology is concerned chiefly at present with the French tick parasite and with the destruction of ticks by killing wild rodent hosts and dipping the domestic animals Dr Roscoe R Spencer, U S Public Health Service, is in charge of the laboratory at present The state board of entomology comprises Dr William F Cogswell, Helena secretary, state board of health W J Butler, D V S, and R A. Cooley, state entomologist, secretary

NEBRASKA

Personal.—Dr Cleland G Moore has been elected mayor of Fremont——Dr Jay B Babcock has been appointed an assistant physician at the Hastings State Hospital vice Dr Frank D Burgess, resigned

Society News.—Dr. John M Banister addressed the Omaha-Douglas County Medical Society, March 22 on 'Ocular Indications in Obstetric Practice'——The Twelfth Councilor District Medical Society met at the West Nebraska Methodist Hospital, Scottsbluff, March 11, among others, Dr George M Anderson, Cheyenne, Wyo, spoke on The General Practitioner's Relation to Public Health," and the Scottsbluff County Medical Society presented a moving picture on pulmonary tuberculosis, Dr. Albert L Cooper, Scottsbluff, was elected president of the district society——Dr Claude P Fordyce, Falls City, among others, addressed the Richardson County Medical Society, April 6, at Humboldt on children s health conferences——The Medical Arts Building, Omaha was formally dedicated, May 12, the principal address was by Dr Harold Gifford on "History of Medicine in Omaha' Dr Frank M Conlin, president of the county medical society accepted the building in behalf of the medical profession from its owners, the Kedzie State Bank of Chicago

NEW JERSEY

Fined for Stealing Clams.—Three men digging clams in polluted water in New Jersey were recently apprehended by a state health department inspector and the police department, and two of them were convicted and fined $25 each the third escaped, and a warrant has been issued for his arrest

Dr. Potter Appointed Medical Director—Dr Ellen C Potter, until recently head of the Pennsylvania State Department of Welfare, has been appointed medical director of the New Jersey Training School, Totawa, and advisory consultant of the state department of welfare, she will take up her work, July 1 Dr Potter was formerly on the faculty of the Woman's Medical College of Pennsylvania, and a member of the Philadelphia Municipal Bureau of Research

State Medical Meeting—The one hundred and sixty-first annual meeting of the Medical Society of New Jersey will be held at Haddon Hall, Atlantic City, June 9-11 The board of trustees will meet the evening of June 8 There will be a symposium on intravenous therapy, Friday, by Drs George T Spencer, Elizabeth, John A Kolmer and Frank M Huntoon, Philadelphia, Robert A Kilduffe, Atlantic City, and John W Gray, Newark, the presidential address will be delivered at noon, Friday, by Dr James S Green, Elizabeth Among the other speakers will be Dr Frederick M Allen, Morristown, on "Pernicious Anemia", Dr Martin E Rehfuss, Philadelphia, 'Modern Approach to Diseases of the Digestive Tract", Dr Frank J McLoughlin, Jersey City, "Operative Treatment of Duodenal Ulcers", Dr George P Pitkin, Bergenfeld, "Better Anesthesia for Thyroidectomies," illustrated, and Drs Emanuel D Newman, Newark, Harrison S Martland, Newark, and Henry A Cotton, Trenton, on syphilis The Saturday morning program will be given at the Atlantic City Hospital by the staff and will be entirely clinical, comprising demonstrations, clinics in various branches of medicine and surgery and laboratory work

NEW MEXICO

State Medical Election.—At the forty-fifth annual meeting of the New Mexico Medical Society, Carlsbad, May 9-11, under the presidency of Dr. Carey B. Elliott, Raton, Dr. Francis M. Pottenger, Monrovia, Calif., among others, discussed "Present-Day Conception of Clinical Pulmonary Tuberculosis," and Dr. Andrew W. Morton, San Francisco, "Spinal Analgesia." Other speakers included Dr. Arthur C. Scott, Temple, Texas; Drs. Gottlieb Werley, Kevin D. Lynch, Charles P. and William L. Brown, all of El Paso, and Drs. Fred D. Vickers, Deming; Albert R. Hatcher, Wellington, Kan.; Robert O. Brown, Santa Fe; Carl Mulky, Albuquerque, and William T. Joyner, Roswell. Dr. Carey B. Elliott, Raton, was made president at this meeting; Dr. Thomas P. Martin, Taos, president-elect; Dr. Fred D. Vickers, Deming, vice president, and Dr. Leo B. Cohenour, 219 West Central Avenue, Albuquerque, secretary-treasurer.

NEW YORK

Malpractice Suits Increase.—In his report to the house of delegates, the counsel of the Medical Society of the State of New York tabulated the number of malpractice suits instituted during the thirteen months ending February 28. The suits instituted numbered 166, and the number disposed of, 146. The largest number instituted under one class was thirty-three under "operations"; twenty-two suits were classified under "obstetrics"; fifteen each under "burns, x-ray, etc.," and "fractures, etc.," and fourteen under "diagnosis." Twenty-five suits are classified as settled, and 112 as dismissed, discontinued, abated or tried (verdict for defendant). In six there was judgment for the plaintiff, and three were appealed (judgment for defendant). During the period reported on, thirty-four more suits were instituted than during the period reported in the last annual report. The number of physicians insured has increased 3 per cent during the last year; 6,073 are now insured as compared with 5,711 in the preceding year. The counsel considers that the group plan of insurance is working well.

New York City

Survey of Medical School.—The New York Post-Graduate Medical School and Hospital reports that it has engaged Dr. Edward H. Hume, until recently president of Yale-in-China, to make a comprehensive investigation and report on the activities, present and future, of the "Post Graduate." Dr. Hume has already taken up this work which will continue for several months. Dr. Hume is a graduate of Johns Hopkins University Medical School, Baltimore, and has been associated with Yale-in-China since its foundation, and since 1923 has been the president.

Society News.—At the annual election of the Medical Society of the Borough of Bronx, recently, Dr. Lipman Miller Kahn was elected president, and Dr. Isidore H. Goldberger, secretary.——The New York Academy of Medicine gave a symposium on the thyroid, May 19, in which the speakers were Drs. William F. Rienhoff, Jr., Baltimore, David Marine, Emil Goetsch and William H. Meyer.——The program of the Medical Society of the County of Kings, May 17, included addresses by Henry F. Osborn, president of the board of trustees, American Museum of Natural History, on "Human Evolution"; by William K. Gregory, professor of paleontology, Columbia University, on "The Origin of Man," and by Dr. Frederick Tilney, professor of neurology, Columbia University, on "The Brain of Prehistoric Man," all of which were illustrated. This society is giving a series of lectures by its own members in its library building, 1313 Bedford Avenue, Brooklyn, afternoons, the week of May 23, all of which are open to the public; there will be a lecture, Thursday evening, also, for men only. Dr. Bernard Fantus, Chicago, gave the final practical lecture of the current series of the society, May 13, on "Sugar."

Personal.—Dr. Henry Dwight Chapin has returned after lecturing on child welfare at the Imperial University of Japan and at the American University of Syria.——Dr. Joshua H. Leiner has been appointed instructor in neurology at the Columbia University College of Physicians and Surgeons.——Dr. Harry E. Cohen has been appointed instructor in pediatrics in the New York Post-Graduate Medical School and Hospital.——Mr. Philip S. Platt has been appointed secretary of the committee on outpatient clinics of New York Tuberculosis and Health Association.——Dr. Morris Grossman has been appointed attending neurologist to the Manhattan State Hospital.——Dr. Walter H. Conley, medical superintendent, department of welfare, was delegated to study the progress in the treatment of cancer in England, France, Germany and Spain; he sailed, April 30.——The following appointments have been made in the New York Polyclinic Medical School and Hospital: Dr. John H. Carroll, professor of internal medicine; Dr. Charlton Wallace, professor of orthopedic surgery; Dr. Percy H. Williams, professor of gynecology, and Drs. Harold E. Santee and Fred W. Bancroft, professors of surgery.——Dr. Peritz M. Kurzweil has been appointed assistant professor of pathology, New York Post-Graduate Medical School and Hospital.

OHIO

Society News.—Dr. Hubert C. King presented a "Report of a Series of Interesting Diabetics" before the Academy of Medicine of Cleveland, May 20, and Dr. Chester D. Christie spoke on "Clinical Consideration of Various Types of Nephritis."——Dr. Trent A. B. Denison, Cleveland, addressed the Columbiana County Medical Society, Lisbon, recently, on "Medical Publicity."——Dr. Cecil Striker, Cincinnati, addressed the Clinton County Medical Society, Wilmington, April 5, on "Periodic Health Examinations."——Dr. Milford E. Barnes, Greenville, addressed the Darke County Medical Society, March 10, on "Darke County's New Health Program."——The Montgomery County Medical Society has added a full-time executive secretary and librarian to its staff; Dr. Charles C. McLean, Dayton, addressed this society, March 18, on "Evaluation of Surgical Risks from the Standpoint of the General Practitioner," illustrated with lantern slides.——Dr. Clayton McPeek, Columbus, addressed the Academy of Medicine of Lima and Allen County, March 15, on "Physiologic Heart Studies in Relation to Valvular Action."——Dr. H. Jerry Lavender, Cincinnati, addressed the Logan County Medical Society, March 4, on "Syphilitic Manifestations of the Skin and Mucous Membranes"; Dr. James F. Baldwin, Columbus, addressed the society, April 1, on "Progress of Surgery and Medicine in the Last Fifty Years." This meeting was in connection with the celebration of the fiftieth anniversary in the practice of medicine of Dr. John H. Wolfe, De Graff.——The Portage County Medical Society was entertained by Dr. and Mrs. Jay D. Smith, Akron, April 7; the program was a symposium on salpingitis.——Dr. John H. J. Upham, professor of clinical medicine, Ohio State University College of Medicine, Columbus, addressed the Richmond County Medical Society, March 17, Mansfield, on "The Reported Increase of Heart Disease," and Dr. Herman H. Hoppe, professor of neurology, University of Cincinnati College of Medicine, on "Neuresthenia."——The Summit County medical and dental societies held a joint meeting, April 11, at Akron, which was addressed by Weston A. Price, D.D.S., Cleveland, on "Newer Knowledge of Calcium Metabolism with Special Consideration of Tooth and Bone Formation." Dr. Roy W. Scott, associate professor of medicine, Western Reserve University School of Medicine, addressed the medical society, April 19, on "Facts on the Heart and Aorta."——Dr. Edmund R. Brush, Zanesville, addressed the Muskingum County Academy of Medicine, April 6, on "Fractures of the Patella."——Dr. Hugh A. Baldwin, Columbus, addressed the Hempstead Academy of Medicine, Portsmouth, recently, on "The Neglected Prostate."

OREGON

Personal.—Dr. Richard F. Thompson, Roseburg, is resigning as director of the Douglas County health unit, July 1, to accept a fellowship in the National Research Council, which will permit studying at Columbia University and abroad in immunology and bacteriology.

University News.—Dr. Henry J. Gerstenberger, professor of pediatrics, Western Reserve University School of Medicine, Cleveland, recently addressed the students of the University of Oregon School of Medicine on "Rickets."——Dr. Wilmot C. Foster, assistant professor of anatomy, University of Oregon Medical School, has been granted a year's leave of absence to work in surgical anatomy at the Mayo Clinic, Rochester, Minn.

Hospital News.—The governor has approved an appropriation of $225,000 toward the construction of the proposed Eastern Oregon Tuberculosis Hospital.——The Morningside Hospital, Portland, which was owned by the late Dr. Henry W. Coe, has been bequeathed to his estate, and will be operated under the present director, Dr. Josiah W. Luckey.——St. Mary's Hospital, Albany, was recently closed, the income not having been adequate to meet expenses for some time, it is reported.

Society News.—Dr. Emile F. Holman, professor of surgery, Stanford University School of Medicine, San Francisco, gave the Joyce Lecture in surgery at the Portland Academy of Medicine, April 14, on "Pulmonary Suppuration."——Twenty-seven physicians from Marion, Polk and Yamhill counties attended the April meeting of the Tri-County Medical Society, Salem, which was addressed by Dr. Frederick H. Thompson, Salem, on "Injuries to the Semilunar Cartilages of the Knee," and by Dr. Benjamin N. Wade, Portland, on "Local Anesthesia in Major Surgery." The next meeting will be at McMinnville in May.——At attempt to repeal the present law requiring medical examination of applicants for marriage licenses has been defeated in the legislature.

PENNSYLVANIA

Infant Mortality at Pittsburgh.—Telegraphic reports to the U. S. Department of Commerce from sixty-eight cities with a total population of about 30 million, for the week ending May 7, indicate that the highest infant mortality rate (154) was for Pittsburgh. The infant mortality rate for Pittsburgh for the year 1925 was eighty-two.

Pottsgrove Wants a Physician.—Our Pennsylvania correspondent writes that the residents of Pottsgrove in Northumberland County desire another physician in that community, owing to the death of the former physician. Pottsgrove is said to have a population of about 500; further information may be obtained by addressing Mrs. C. F. Koch.

Personal.—Dr. Roscoe L. Perkins has been reappointed by the council a member of the board of health of Harrisburg for five years.——Dr. John H. Snoke, formerly assistant director of Johns Hopkins Hospital, Baltimore, has been appointed superintendent of the Bryn Mawr Hospital.——Dr. Cecil F. Freed has been appointed associate in surgery on the staff of the Reading Hospital, Reading.

Philadelphia

Medical Women's Alumnae Meeting.—The fifty-second annual meeting of the Alumnae Association of the Woman's Medical College of Pennsylvania will be held at the college, June 9-10; Dr. Alice E. Johnson, clinical professor of psychiatry, will speak on "The General Physician and the Neurotic Patient." Other speakers will be Dr. James C. Small, Philadelphia General Hospital; Dr. Alwin M. Pappenheimer, New York; Dr. Ethel M. G. Peirce, Presbyterian Hospital, Philadelphia; Drs. Tracy and Butler, Dr. Mary M. Spears and Dr. Dott Case Blechschmidt. The banquet will be at the Warburton House, Thursday evening; tickets, $4.

Hospital News.—Mount Sinai Hospital, Fifth and Reed streets, has announced plans for a $1,000,000 addition of four complete units.——Wills Eye Hospital, Eighteenth and Race streets, celebrated its ninety-fourth anniversary, April 2; an appeal was made for contributions, calling attention to the fact that the resources of the institution are limited to endowments.——The U. S. Naval Hospital, Twenty-Fourth Street and Grays Ferry Road, celebrated the one hundredth anniversary of the laying of the cornerstone, April 2; among the speakers were Mayor Kendrick and Admirals Leigh and Magruder.——The campaign for $1,000,000 for the Philadelphia Home for Incurables opened, May 3, when soil was turned for the new home at Belmont and Conshohocken avenues, Bala.——The Abington Memorial Hospital campaign for $1,500,000 was already oversubscribed, May 4.——Ground was broken, May 5, for the first unit of the new Bryn Mawr Hospital building by the president, Samuel M. Vauclain; the first unit will have a capacity of 180 beds, in addition to the administration and isolation building; it will cost $2,000,000.——Dr. Hyman I. Goldstein has been appointed chief of the medical diagnostic clinic of Mount Sinai Hospital, Philadelphia.

Society News.—Dr. H. Brooker Mills, professor of pediatrics, Temple University Department of Medicine, was guest of honor at the eleventh annual dinner of the pediatric society bearing his name. Dr. Frank C. Hammond, dean of the department of medicine, was toastmaster; among the speakers were Dr. Wilmer Krusen, city director of health and charities; Charles H. Grakelow, director of public welfare, and Dr. William S. Wadsworth. This was also the occasion of the birthday of Dr. Mills, and the senior class and the alumni presented flowers.——Dr. Joseph E. Raycroft of Princeton University, Princeton, N. J., addressed the public health and industrial medicine section, College of Physicians, May 9, on "Health Supervision in Colleges and Universities"; Dr. Walter S. Cornell spoke on "Health Supervision in the Philadelphia Public Schools."——Dr. Luther Emmett Holt, Jr., associate in pediatrics, Johns Hopkins University Medical Department, Baltimore, addressed the Pathologic Society of Philadelphia, May 12, on "The Pathogenesis of Tetany."——Dr. Thomas W. Salmon, professor of psychiatry, Columbia University College of Physicians and Surgeons, New York, addressed the Philadelphia Psychiatric Society, May 13, on "The Therapeutic Attitude in Psychiatry."——Dr. Henry K. Mohler was recently elected president of the Philadelphia Heart Association; Dr. James E. Talley, vice president, and Dr. William D. Stroud, secretary.

VIRGINIA

Hospital News.—In the will of the late Mrs. Bertha Virginia Guggenheimer, probated March 12, the Memorial Hospital of Lynchburg was left about $500,000 for the establishment and maintenance of a children's and maternity hospital.——A drive for funds for the proposed Page Memorial Hospital at Luray opened, April 18.——The rural hospital at Farmville, made possible by an appropriation by the Commonwealth Fund, has been under construction since last September, and is expected to be open about next September. The governing board, consisting entirely of laymen, has been appointed, but the medical staff has not.

Dr. White Honored.—More than 400 physicians of Virginia and other states attended a banquet at the Commonwealth Club, Richmond, April 19, to celebrate the seventy-ninth birthday of Dr. Joseph A. White, for many years professor of ophthalmology, otology, rhinology and laryngology, at the Medical College of Virginia, Richmond. Dr. William T. Oppenhimer, Richmond, was toastmaster. Among the speakers were Drs. George E. de Schweinitz, Philadelphia, and Hiram Woods, Baltimore, past presidents of the American Ophthalmological Society; Drs. Thomas B. Holloway, Philadelphia; James Bordley, Jr., Edward A. Looper, Baltimore; J. Shelton Horsley, president, Medical Society of Virginia; Stuart N. Micheaux, president, Richmond Academy of Medicine; Lester H. Taylor, Wilkes-Barre, Pa.; John W. Dunn, Richmond, and the following past presidents of the Tri-State Medical Society of which Dr. White is a past president: Drs. David T. Tayloe, Washington, N. C., and John P. Munroe, Charlotte, N. C. Dr. White was also presented with a gift as a taken of esteem.

WYOMING

Personal.—Dr. George O. Hanna, Lingle, has been appointed health officer of Goshen County.——Dr. George M. Anderson, Cheyenne, whose term as state health officer expires, May 23, has accepted a position with the state board of health of Kentucky.——Dr. Roscoe R. Spencer, U. S. Public Health Service, gave an illustrated talk on Rocky Mountain spotted fever at a dinner given by the Laramie County Medical Society, March 29; the Sheridan County Medical Society also gave a dinner in honor of Dr. Spencer, April 4.

CANADA

Canadian Medical Association Meeting.—The fifty-eighth annual meeting of the Canadian Medical Association will be in Toronto, June 13-18, with headquarters at Exhibition Hall, University College. At the same time will be held the annual meetings of the Ontario Medical Association, the Ontario Radiological Society and the public health association, the tuberculosis association, the society of anesthetists and the radiologic societies of Canada. The first two and one-half days will be devoted to business, the scientific programs beginning Wednesday afternoon. Lack of space forbids abstracting, except to a small degree, the large program of important scientific papers. Sir Charles S. Sherrington will give the second Listerian Oration, Friday evening. The lieutenant governor of Ontario will give a garden party at the Government House, Wednesday afternoon, and the annual dinner dance will be held that evening. The various sections have arranged clinics in the hospitals, ward rounds, demonstrations and symposiums. A golf tournament, June 14, has been planned, and an artistic silver trophy has been presented by the Ontario Medical Association in the form of a challenge cup; other prizes will be presented. The women's program includes, among other things, a trip on Lake Ontario, through the courtesy of Mr. A. L. Mathews, musicales, luncheons, drives and a golf tournament. Among the speakers from the United States in the section meetings will be Drs. Dean Lewis, Baltimore, "Lesions of the Arteries of the Extremities"; Benjamin P. Watson, New York, "Postpartem Care"; John H. Evans, Buffalo, "Postanesthetic Toxemias"; Allan Rowe, Boston, "Consumption of Oxygen in Health, Disease and Anesthesia"; Ralph M. Waters, Kansas City, "Carbon Dioxide—Its Place in Anesthetic Technic"; Elmer I. McKesson, Toledo; F. Hoeffer McMechan, Avon Lake, Ohio; George S. Derby, Boston; George E. Shambaugh, Chicago; Charles S. McVicar and Verne C. Hunt, both of Rochester, Minn.; Russell A. Hibbs, New York, and Louis K. Poyntz, Chicago.

GENERAL

More Liberal Pay Regulations for Reserve Officers.—All National Guard officers classed as "not belonging to organizations" will benefit by regulations which became effective April 1, governing the requirements for armory drill pay. The regulations now permit proper authorities to order certain duties performed by guard medical officers which are not necessarily drill duties, permitting, says the *Military Surgeon*, medical officers, when ordered to do so, to be paid for conducting physical examinations, vaccinating and inoculating, and for attending drills of line organizations. The officers benefited mostly by the change are general and field officers, and captains and lieutenants not belonging to companies.

Organizations for Hard of Hearing.—The eighth annual meeting of the American Federation of Organizations for the Hard of Hearing, Inc., will be at Chautauqua, N. Y., June 27-30, under the presidency of Dr. Gordon Berry. Monday will be given over to reports illustrated with lantern slides from the various zones; addresses on organization work by representatives from Switzerland, France, England and Holland, and a report of the research committee of which Dr. Wendell C. Phillips, New York, is chairman. Dr. George E. Shambaugh, Chicago, will report on medical research; and Dr. Douglas Macfarlan on hearing aids. Tuesday will be lip reading day with a teachers' council and round table discussion on (1) cooperation from otologists; (2) advertising the private schools, and (3) importance of qualified teachers. The banquet will be Wednesday evening. The new officers will be announced at the banquet, and the president's and treasurer's trophies will be presented.

Road Accidents—Casualty Every Forty-Two Seconds.—The American Road Builders' Association at a meeting in Washington, D. C., May 13, made public the results of a survey of highway accidents in the five years ending Jan. 1, 1927, said to be the most extensive study made into the causes of road accidents. It appears that during this period more than 100,000 persons have been killed, nearly 30,000 of whom were school children, and more than $2,000,000,000 worth of property has been damaged. A casualty now occurs on the roads every forty-two seconds. Fatigue caused more accidents than any other one factor, and perhaps explains why more accidents occurred between 4:30 and 5:30 in the afternoon than in any other two hours of the day. The association approved plans for a national highway safety campaign to be conducted under the direction of Thomas M. Upham, managing director of the association, and Paul L. Griffiths, Pittsburgh. The campaign will be carried into the schools, churches and civic organizations.

Device to Detect Mercury in Atmosphere.—The General Electric Company, Schenectady, N. Y., announces the development of a device which will detect, easily, one part of mercury in 20,000,000 parts of the atmosphere. In view of the increase in the industrial use of mercury, the device is considered important. The method is based on the reaction between selenium sulphide and the mercury vapor in the atmosphere by which a colored substance is produced that is observable to the eye. The yellow selenium sulphide is put on as a coating on paper, a continuous strip of which is drawn slowly over an opening through which the air flows, a small clock motor moving the strip at a uniform rate. The paper blackens on exposure to mercury vapor. The colored strip of paper is compared with a standard scale, and the different shades from yellow to black calibrated in terms of mercury concentration. With an incandescent lamp in front of the strip of paper and a photo-electric cell behind it, the amount of light reaching the cell will depend on the amount of blackening of the paper. The light thus regulates the readings of an ammeter, so that the concentration of the mercury vapor in the atmosphere can be determined either by observing the color of the paper or by reading the ammeter. The photo-electric cell circuit can be so arranged that when the concentration of mercury vapor becomes dangerously high, a gong will sound a warning.

Government Services

Admission Rates at Army Posts

The Surgeon General's Office has issued a bulletin giving by station the ten highest admission rates for disease for 1926. The highest rate was at Fort Slocum, N. Y. (1,146.5 per thousand); Fort Crook, Neb. (1,106.1); Fort Benjamin Harrison, Ind. (922.4); Fort Ringgold, N. M.; Fort Leavenworth, Kan.; Camp Holabird, Ga.; Fort Hayes, Columbus, Ohio; Fort Ontario, Oswego, N. Y.; Chanute Field, Rantoul, Ill., and Carlisle Barracks, Pa. (837). The highest admission rate among the corps areas was in the fifth, with headquarters at Fort Benjamin Harrison; the second highest in the seventh, and the lowest in the District of Washington. There was an increase in the admission rate from disease and from all causes over that for the two preceding years on account of an outbreak of respiratory diseases in the first three months of 1926, which appeared simultaneously in widely separated sections of the country. This epidemic was associated with a comparatively small increase in the number of deaths in the army, but it materially increased the mortality in the general population. The severest infection of the epidemic was at Fort Slocum, where there were twenty-five cases of primary pneumonia and five secondary with ten deaths. The barracks at this post were overcrowded during the period of the epidemic, the average strength of enlisted men being 1,775 in January; 2,140 in February and 1,791 in March, whereas the usual strength at Fort Slocum is about 1,200.

Changes in Personnel of Veterans' Bureau

The April *Medical Bulletin* of the U. S. Veterans' Bureau notes the following changes in the medical personnel:

Dr. Albert A. Ankenbrandt, transferred from hospital at West Haven, Conn., to regional office at New York.
Dr. Elda Martin Dings, resigned at Memphis, Tenn.
Dr. Charles E. Fitzsimmons, resigned at hospital, Kansas City, Mo.
Dr. Clement A. Fogerty, transferred from hospital at West Haven, Conn., to hospital at Kansas City, Mo.
Dr. David M. Gardner, transferred from hospital at Tacoma, Wash., to hospital at Algiers, La.
Dr. Henry L. Hayes, transferred from hospital at New Orleans, Section C, central board of appeals, to advisory group on appeals, central office.
Dr. Ernest A. F. Hirrschoff, transferred from hospital at Algiers, La., to hospital at St. Cloud, Minn.
Dr. John Q. Holifield, resigned at hospital at Perry Point, Md.
Dr. Charles W. Hughes, transferred from hospital at Muskogee, Okla., to hospital at Fort Snelling, Minn.
Dr. Curtis A. Hunsaker, appointed at hospital, North Chicago, Ill.
Dr. Grover C. Kirk, appointed at hospital, Washington, D. C
Dr. John M. Love, transferred from hospital at West Haven, Conn., to hospital at Outwood, Ky.
Dr. William J. Olds, appointed at hospital, Chillicothe, Ohio.
Dr. Antonio J. Rodriguez, transferred from St. Elizabeth's Hospital, to hospital at Tacoma, Wash.
Dr. Robert L. Russell, transferred from hospital at Fort Bayard, N. M., to hospital at Oteen, N. C.
Dr. Walter V. Spencer, transferred from hospital at Oteen, N. C., to hospital at Memphis, Tenn.
Dr. William S. Titus, appointed specialist in surgery at hospital at Boise, Idaho.

REGIONAL OFFICERS

Dr. Edgar P. Adams, resigned at Cleveland.
Dr. Robert F. Buehl, resigned at Indianapolis.
Dr. James F. Douglas, transferred from central board of appeals, New York, to central office.
Dr. Royal G. Grossman, resigned at Cleveland.
Dr. John H. Schroeder, resigned at Cincinnati.
Dr. Paul Sudhoff, appointed at diagnostic clinic, Cincinnati.

New Surgeon of Asiatic Fleet—Other Changes

Captain James S. Woodward, Jr., medical corps, who has been with the naval detachment at Constantinople, will assume the duties of fleet surgeon of the Asiatic fleet. Capt. Eugene J. Grow is to be assigned as assistant chief of the bureau of medicine and surgery, Washington, D. C., relieving Capt. Arthur W. Dunbar, who goes to command the naval hospital at Annapolis, and Capt. Robert M. Kennedy, now in command of that hospital will come to the navy department, relieving Capt. Edgar Thompson who goes to duty at the marine barracks in Washington; Commander Eugene A. Vickery goes from the naval war college on completion of the course to the U. S. S. *Richmond*, as surgeon of the naval forces in Europe. Commander Gardner E. Robertson goes to the naval hospital at Pearl Harbor; Lieut. Comdr. William W. Behlow to the naval hospital, New York, and Lieut. Comdr. James A. Brown to the naval hospital, Great Lakes, Ill. Lieut. Comdr. Robert T. Canon has withdrawn his resignation. The following officers have resigned: Lieuts. Robert F. Hague and Harry L. Reinhart.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 7, 1927.

Combating the Tsetse Fly in Nigeria

The government of Nigeria has been investigating for five years the tsetse fly problem. It is now known that there are several species of this vector, which is responsible for so much disease in man and animals in that colony. *Glossina morsitans* and *longipalpis*, game-feeding bush tsetse, inhibit the keeping of cattle and horses, while the riverine species *G. palpalis* and *tachinoides*, though dangerous to stock in the presence of game from which the virus of nagana is derived, are more harmful as the carriers of trypanosomiasis. In the wetter southern part of the country, almost everywhere at least two of these species may be found, frequently three of them, and in certain areas all four range together, the limiting factors in their detailed distribution being the type of forest that prevails and the abundance or otherwise of the wild ungulates.

The site of the investigation for the last four years has been at Sherifuri, in the angle between the Katagun and Kiyama rivers. During the first two of these years the whole time was devoted to a study of the flies in their normal habitat. Both species of tsetse present in the area, *G. morsitans* and *G. tachinoides*, have been collected week by week from various fixed points, and dissected to the number of more than 60,000. From the statistics accumulated, curves have been constructed representing the rise and fall of such factors as the abundance of the flies, their sex proportion, the amount and type of the blood they have imbibed, their state of well being as evidenced by their fat or lean condition, the rate of breeding given by the proportion of young flies, and their trypanosome infestation. All these factors show a normal annual rhythm which reflects the influence of the seasons on the prevalent water, the forest shade, and the local migrations of the wild fauna. If the normal conditions are changed, whether by removal of elements of the wild fauna, the cutting down of thicket, or the burning of grass at an unusual time, the normal rhythm of the curves is changed, in some cases profoundly, and in this way the effects of change may be estimated and compared on the basis given by the preliminary work.

The experiments that are being conducted fall under three heads: First, from one well defined fly focus the wild ungulates have been excluded by means of a fence of wire netting. The result has been that the thriving colony of *G. morsitans* that used to exist for the greater part of the year about the enclosed pool is now reduced to a few hungry flies, stragglers from the neighboring foci. The colony of *G. tachinoides* has also been much reduced, but the state of starvation so evident in the bush species is less evident in the riverine form because the latter feeds readily on reptiles. That morsitans would disappear together with the game is therefore proved, but it is not practicable to get rid of the game in thickest country without close settlement. For various reasons the investigators are not in favor of attempted game extermination, but take the view that no effort whatever should be made to foster and preserve the antelope in northern Nigeria. If they increase, as they are doing in some parts, they spread out into the cattle country, and *G. morsitans* moves with them. The antelope and pigs form the only important source from which the tsetse derives the virus that destroys domestic stock, and for this reason they should not be allowed to increase near the safe grazing grounds. The second line of inquiry is a study of the effects of sweeping grass fires, which may be induced by preserving the grass from burning till late in the dry season. Such fires certainly destroy a large number of tsetse and their pupae. Swynnerton, who first proposed this method of control, appears to be employing it with considerable success in Tanganika Territory. There the late fires enter and often burn out the thickets, but the massive fringing bush of northern Nigeria is hardly affected by such a procedure. Even if it is found that deferred grass burning is likely to be beneficial, it is doubtful whether the principle can be applied outside definitely reserved areas. The third method of control is clearing, but the difficulty is that it is desirable to preserve as much forest as possible. In their attempts to control by clearing, the investigators are therefore cutting down the minimum which they believe may be effective.

Physicians and Philosophical Studies

A joint letter over the names of leading men in the profession—Lord Dawson of Penn, Sir Thomas Horder, Sir Henry Head, T. W. Mitchell, William Brown and H. Crichton-Miller—appears in the medical press advocating philosophical studies for physicians. The signatories point out that there is evidence that what are termed generally philosophic studies would be of advantage to many physicians, both by expanding and by defining their outlook in relation to general or individual experiences and by affording assistance in the solution of practical difficulties. The need for clear thinking was never more apparent than it is today, when our expanded range of knowledge adds constantly to a stock of exact information, the bearings of which cannot be confined to any one branch of science but make themselves felt in every field. "What is it all about?" is a question that every well informed man asks himself when a mental problem, perhaps with a direct reference to action, presents itself to him in a form that is not dictated by his particular equipment. And the better informed he is, the more clear will it be to him that he needs fundamental guidance. In other words, he desires help in clear thinking. The recently formed British Institute of Philosophical Studies exists in order to afford this help to those who need it. The general object of the institute is "to bring leading exponents of various branches of philosophy into direct contact with the general public with the purpose of satisfying a need, felt by many men and women in every walk of life, for greater clearness and comprehensiveness of vision in human affairs." The signatories say that medical men and women are meeting many difficulties that are arising through the vast development of their science—developments of knowledge, of technic and of administration; these are being accompanied by a broadening of view in their ranks, and also by a multiplication of the relations of medicine to society brought about by far-reaching changes in the law. The position must therefore often arise when physicians need clearness and comprehensiveness of vision. They would benefit by an opportunity of taking counsel with those in other sections of activity, who may be meeting their own problems from a different angle or who may be able to give an opinion on medical problems which gains in breadth and public influence through its detachment from medicine. Further, medicine by cooperation can confer on those other sections of activity the advantages of sharing considered medical opinion and of learning the arguments relied on for its establishment. Sociological and psychologic questions arise constantly out of all medical practice and not only out of those sides of medical practice apparently concerned with mental disease or moral conduct, while metaphysics must play a part in any comprehensive attempt to distinguish between normal or abnormal conditions, physical or mental—indeed, between health and disease. A general philosophical equipment will be of great use to the practitioner as a supplement to all scientific knowledge, for it will conduce to clear thinking. The signatories, therefore, advocate the claims, on members of the profession, of the British Institute of Philosophical Studies.

Arsenic on Apples

In connection with a recent case of prosecution of a greengrocer for selling American apples containing lead arsenate, a letter asking whether anything is now being done by American growers to safeguard the consumers was written by the secretary of the London Vegetarian Society to Mr. R. W. Dunlap, acting secretary of the Department of Agriculture, Washington. In reply, Mr. Dunlap states that the American fruit producing industry is fully alive to the necessity for eliminating dangerous quantities of spray residue on fruit and is working wholeheartedly with both federal and state governmental agencies who are concerned with this problem. Intensive studies designed to control the spray residue were made during the last producing season by both governmental and commercial agencies. While a great improvement in the condition of the crop was brought about, it was found that in certain areas of low rainfall, even the most careful restriction in the application of sprays, followed by brushing and wiping the fruit after harvest, left excessive quantities of residue on the fruit. This demonstrated clearly the necessity for employing other methods of removing spray residues than by brushing or wiping. Experimental work conducted last season in a number of localities where spray residue may be excessive at time of harvest has shown that by the use of certain dipping methods the fruit may be cleaned to a point at which the amount of residue will be well below the recognized tolerance. Steps are now being taken to advise the fruit producing industry in those regions where fruit cleaning is essential, of the equipment and processes necessary in the application of these methods, and everything possible will be done to bring about the installation of this equipment before the next packing season. It is expected that as a result of the combined effort of the fruit producing industry and interested governmental agencies, none of the fruit exported to Great Britain during the coming season will bear objectionable quantities of spray residue.

Illicit Drug Traffic

Startling disclosures of the international illicit drug traffic are made in the report of the League of Nations advisory committee which has been examining the traffic in opium and other dangerous drugs. The annual reports from governments show that the traffic is enormous. The outflow of opium from China in large amounts seriously embarrasses adjoining countries. Drugs are smuggled into the Far East in great quantities. In India the illicit drug traffic is said to amount to as much as forty times the legitimate imports. In the Far and Middle East large seizures have been made of drugs and of raw and prepared opium, while in Europe enormous quantities of drugs pass into the hands of illicit traders, and large seizures have also been made in the United States. The following cases were reported to the league during seven months of 1926. Transactions amounted to over sixty-five tons of raw opium, 3,520 ounces of heroin, 10,195 ounces of morphine and 625 ounces of cocaine. Seizures were made of 790 ounces of heroin, 350 ounces of cocaine, and 3,300 ounces of opium, while more recent seizures included single consignments of 4,410 ounces of morphine, fifteen barrels of morphine, 8,200 and 3,240 ounces of heroin, and of a consignment containing 2,100 ounces of morphine, 135 ounces of cocaine and 142 ounces of heroin. A report from the chief of the Cairo police states that the Egyptians are rapidly becoming a race of drug addicts in spite of the prosecution of 5,600 individuals during the year.

GENEVA

(From Our Regular Correspondent)

April 1, 1927.

Neuropathic States

A few months ago, the proceedings of the meeting of physicians and representatives of the federal administration held in 1925 were published. They bear the title "A Contribution to the Study, Treatment and Appreciation of Neuropathic States." The laudable aim of the chief army surgeons and surgeons of the Swiss railways was "to make uniform" the opinions of physicians and insurance companies in respect to certain neuropathic states frequent among the insured.

Dr. Repond questions whether it would not have been better to submit the problems discussed to the Psychiatric Society and the Neurologic Society. The results of such a preliminary study would have made an excellent starting point for a future meeting of experts. Unquestionably, the few specialists who took part in this meeting succeeded in defining some terms and concepts. Other ideas, although given out in a categorical manner, cannot be accepted, because they are not established. Such, for example, is the statement that schizophrenia is always an endogenous morbid process, and that any exogenous factor is incapable of provoking the development of this psychosis in patients in whom a simple pathologic predisposition exists. On the contrary, cases of schizophrenia having a more or less complete psychogenous or traumatic etiology are relatively rare, yet they do occur.

Spahlinger's Treatment

In the *Bulletin professionnel des médecins suisses,* April 1, appears a declaration, signed by Dr. H. Maillart, president of the Central Committee of the Federation of Swiss Physicians, and Dr. R. Garraux, secretary, of which the following is a translation:

"On account of the ever increasing requests for information received by Swiss physicians regarding Spahlinger's procedures of treatment of tuberculosis, especially from the profession of Great Britain, the Central Committee has decided to publish the following declaration:

"Mr. Spahlinger, of Geneva, licentiate in law, not being a physician, does not belong to the federation.

"The serums and vaccines that he says he has discovered for curing tuberculosis have only exceptionally been used by Swiss physicians and in Swiss people; at any rate the Swiss medical press has never published an article by Mr. Spahlinger, nor has anybody else, on his serums and vaccines, on their preparation, the way of preparing them or the therapeutic results obtained. Any control of these serums and vaccines and results obtained has therefore been impossible in Switzerland.

"Consequently, Mr. Spahlinger's methods have remained unknown to the great majority of Swiss physicians.

"The Central Committee, having demanded of the Medical Society of Geneva an opinion of Spahlinger's treatments, this society replied that it could not give any opinion. These methods never have been published in a sufficiently explicit way to be seriously discussed and the first explanation that Mr. Spahlinger made to the society, March 2, 1927, resulting from the reply to be made by the society, was in no way conclusive. The ideas which have served as a basis of his work and which he exposed at the meeting, were entirely theoretical and quite beyond control."

Botany in the Premedical Course

During the past year, reform of medical studies in Switzerland has been much discussed, more particularly at Zurich. Many maintain that the course is too long and to remedy this it is proposed to eliminate the requirement for the student to pass examinations in botany and comparative anatomy. The utility of this university instruction for future physicians is even doubted. For thirty years Professor Chodat has been examiner of candidates for the federal diploma of medicine and therefore has been able to observe a considerable number of students and to follow them in their careers. In all his botany courses, Chodat keeps physics and chemistry in the foreground and puts them aside only when they become insufficient to express the phenomenon of life. But botany, in addition, trains the student to think biologically. To be sure, the medical student will find all this in his lectures on physiology, normal anatomy and embryology; but in order to grasp these subjects he should be in contact for not less than one year with the professors of botany and zoology (comparative anatomy). Chodat thinks that a meeting of all the Swiss professors of natural sciences should be called to discuss a minimum program for the teaching of subjects necessary for medical students. This program should be revised every five years. For thirty years Chodat has constantly revised his teaching to keep abreast of medical knowledge. Today medicine, like sociology, is showing renewed attention to heredity. It is easier to experiment on sweet peas, string beans and guinea-pigs than on the human being; hence the capital importance of botany and zoology in the study of heredity and sociology.

ITALY

(From Our Regular Correspondent)

April 5, 1927.

The Use of Immunizing Serums in Man

The *Gazzetta ufficiale del regno* has published a decree which imposes a penalty on the use in man, whether for diagnostic or for curative purposes, of vaccines, serums, viruses, toxins and like products, the manufacture of which has not yet been authorized by law. Such use is permitted solely in public institutes of a hospital character, and in public ambulatoriums authorized by the prefect, always under the responsibility of the director of the institute. Of such use the director must make an exact record, and must give a written notice to the head of the administration by which the institution is controlled. In the case of a public ambulatory, the health officer of the commune must be informed in writing. The health officer, in turn, must inform the provincial physician. On the basis of the report of the provincial physician, the prefect may prohibit the use of any immunizing products. The preparation of autovaccines must take place exclusively in institutes thereto authorized by the minister of the interior. Each year, under the supervision of the general management of the public health service, there will be published the list of immunizing products the sale and use of which are permitted.

Congress of Dermatology and Syphilology

Under the chairmanship of Prof. G. Bosellini, director of the Clinica dermosifilopatica at Rome, the Società italiana di dermatologia e sifilografia held its twenty-third congress.

THE THYROID GLAND IN DERMATOLOGY

The first main topic, the thyroid gland in dermatology, was divided into three parts, on each of which an official paper was presented. The first part was discussed by Professor Artom of Novara, and took up the function of the thyroid in general and its relations to the skin. After a general consideration of the subject he reported the results of some of his own researches on relationships between the thyroid and certain cutaneous diseases. The second subtopic, the influence of the thyroid on skin nutrition, was developed by Professor Bertaccini of Perugia, who concluded from the concordant evidence of physiology, experimental pathology and clinical observations that the thyroid exerts an influence on skin nutrition. Dealing with the third subtopic, altered thyroid functioning in relation to dermatoses, Dr. Sparaico of Rome discussed his personal series of fifty-nine cases of dermatosis, in thirty-six of which he found changed thyroid functioning.

BIOLOGIC TESTS IN GONOCOCCUS INFECTION

The second main topic was likewise divided into several subtopics, which were assigned to five different speakers. The first subtopic, the deviation of complement in gonorrhea, was presented by Dr. Buquicchio of Turin. The author reached the conclusion that, from the clinical standpoint, the gonorrhea test has only a relative value. The second subtopic, serologic examinations in gonococcus infections, was handled by Dr. Crosti of Milan, who pointed out that researches on the precipitin in the blood serum do not give results of high clinical value. The deviation of complement, in spite of its disadvantages, is a test of high practical clinical value. Dr. A. Mucci of Rome gave his conclusion, on the third topic, that the intradermal test is without practical value in gonorrhea. Dr. Peli of Rome, in dealing with the fourth subtopic, concluded that agglutination of the gonococcus in the blood serum of gonorrheal patients is without practical importance. In presenting the fifth subtopic, deviation of complement in gonorrheal disease, Dr. Spicca of Rome stated that this test, with modern polyvalent vaccines and the perfected technic, reveals the presence of gonorrheal antibodies in a very high percentage of cases, even though scarce and labile. In the discussion that followed, a resolution was drawn up by Professors Cappelli and Pasini and approved by the assembly, to the effect that, while the deviation of complement has a practical value as a biologic test in gonococcus infection, the necessity of a delicate and rigorous technic, which can be followed only in a scientific laboratory, precludes its more general use in a practical manner.

EXPERIMENTAL SYPHILIS IN THE LLAMA

The first part of the third main topic, experimental syphilis in the llama, had been assigned to Professor Bosellini of Rome. He directed attention to the researches of two Argentine physicians, Jaureguy and Lancelotti, according to which the llama showed itself not only receptive to human syphilis but also capable of supplying a therapeutic serum. A considerable number of llamas were presented by the Argentine government to the Accademia Medica of Rome, in order that the experiments of Jaureguy and Lancelotti might be repeated and controlled. At Rome experiments were carried out, at various times, on nine llamas, which were inoculated with syphilitic material. In some of the animals, at the points of inoculation there were reactions which, as it appeared to Bosellini, did not present the characters of syphilis. In none of them, up to the present time, have general signs been noted. In twenty-one of the animals (including the nine that were inoculated), serologic tests were carried out (Wassermann, Sachs, Georgi, Meinicke). There were some positive reactions, not only in those inoculated but also in the controls. A few intense positive reactions were observed in the controls. Bosellini recalls, therefore, that the blood of the llamas behaves toward biologic tests in much the same manner as that of other experimental animals; for example, the rabbit, in which various reactions are encountered. In summing up, Bosellini stated that nothing as yet justifies the belief that the inoculated animals are affected with syphilis. Professor Hoffmann of Bonn reached similar experimental conclusions. The second subtopic was developed by Professor Lombardo of Pisa, who reported on three series of inoculations carried out by Tornabuoni and himself on two adult llamas with human virus and with virus passed through the rabbit. During six months of observation, the investigators did not observe the development of reactions that would justify the assumption that the animals had contracted the disease. The Wassermann test was negative in every instance. The third subtopic was presented by Professor Pasini of Milan, who, following the inoculation of five llamas with human syphilis, did not observe evidence of the animals having developed the disease Also, the Wassermann test gave only negative results. Pasini concludes, therefore, that the llama is not receptive to syphilis.

Exhibit of Hygiene Pertaining to Women and Children

At Turin, in the Parco del Valentino, there will be held, during the months of May, June and July, a special exhibit destined to disseminate the facts of modern hygiene pertaining to women and children. The exhibit, which is the first of the kind to be held in Italy, will be arranged in three principal sections as follows: 1. Women: the period of gestation; alimentary hygiene of the puerperium and the period of lactation; hygiene and beautification of the hair, the mouth and the body; the home medicine chest. 2. Children: general hygiene; rearing and management; prophylaxis and sanitary equipment. 3. The home: heating, lighting, ventilation, sanitary installations. Other features will include: the kitchen and the preparation of food; woman's work (midwife, nurse, wetnurse, children's maid); after-labor; school hygiene; rural hygiene, and the hygiene of travel.

PARIS

(From Our Regular Correspondent)

April 20, 1927.

Thrombo-Angiitis Obliterans

Dr. Guillaume endeavors to establish in a recent communication that Buerger's disease, or thrombo-angiitis obliterans, is not a morbid entity. According to Guillaume, it is merely a juvenile type, already known, of arteritis obliterans, previously referred to by Friedlander (1876), von Winiwarter, Zoege von Manteuffel, Dutil and Lamy, and described by Camuset in 1902 under the name of "spontaneous arteritis." It is by no means peculiar to the Jewish race and is not of infectious origin. The disease dates back most commonly to a simple arteritis. Examination of amputated parts shows that, contrary to the opinion of Buerger, there are primary lesions of endarteritis, and that it is these lesions that are the starting point of thrombosis. The veins reveal significant parietal lesions independent of thrombosis. With advancing age these forms develop in the direction of ordinary arteriosclerosis, which is the only type found in aged persons.

The Sixth French Congress of Protection Against Tuberculosis

The sixth French Congress of Protection Against Tuberculosis, held at Lyons, April 11-14, was attended by more than 900 members of the society. The session was presided over by Dr. Mouisset, while Professor Arloing served as general secretary. The congress was opened by M. Herriot, mayor of Lyons and minister of public instruction, who called attention to the double aspect, scientific and social, of tuberculosis. He emphasized the social aspect, and said that the problem of hygienic housing, an abundant meat diet and physical education constituted the prime factors in the prophylaxis of tuberculosis. Professor Mouisset gave a short address of welcome to the conventionists, among whom were a number of foreign physicians: Demiéville, De Peyer, Jacquerod and Roux, from Switzerland, and Grossi and Vecchi from Italy, together with representatives from Spain, Belgium and the Netherlands.

The first topic on the program, the experimental bases of allergic reactions in tuberculous infection, was the subject of a comprehensive paper by Prof. Paul Courmont of Lyons, and was followed by an animated discussion. The second topic, factors of terrain other than allergy, was treated by Professor Sergent and Dr. Turpin of Paris. The same day, there was a plenary session of the administrative committee of the Conseil national de défense contre la tuberculose, presided over by Professor Calmette, and also of the administrative committee of the Oeuvre de la tuberculose. The day closed with the dedication of the antituberculosis dispensary at Oullins, of the preventorium at Charly, and of the hospital-sanatoriums of Perron and Ste. Eugénie.

The second day was devoted to the discussion of two other topics. One was thoracoplasty in the treatment of pulmonary tuberculosis, which was handled by Professor Bérard of Lyons and Dr. Dumarest of the Sanatorium d'Hauteville. They presented numerous patients who had undergone thoracoplasty with success, together with roentgenograms and lantern slides, and formulated the indications and the operative technic that are most likely to give good results in this method. Professor Saye of Barcelona, MM. Ameuille and Ladennois of Paris, M. Toussaint of Lausanne, and Professor Roux of Lausanne, discussed the same subject and approved the conclusions of Bérard and Dumarest. The second topic of the day was the semeiologic value of the bacteriologic examination of the sputum in pulmonary tuberculosis, and was presented by M. Cordier of Lyons. Numerous communications on the same subject followed, to mention, more particularly, those of MM. Bezançon, Sergent, Guinard of Paris, F. Arloing and Thévenot of Lyons, Dumarest of Hauteville, and Jullien of Grenoble. At the close of the day, visits were paid to the preventorium of Cuire, the open-air boarding school of Vernay, and the Maison d'Hygiène of Chaux.

The third day was devoted to antituberculosis societies. At the morning session, Dr. Poix of Paris gave an account of the present status of the two most important factors for the protection of children against tuberculosis: the preventorium and placement in healthy families. The preventoriums, adapted for children affected with light and curable forms of the disease but who are not contagious, comprise at present 150 institutions with more than 10,000 beds. Placement in healthy families is accomplished through the Grancher society, healthy children being removed from contagious surroundings and placed in suitable families residing in the rural sections. Collaboration of the medical profession with the dispensaries was discussed by M. Jacques Parisot of Nancy. A meeting of the Société de médecins de sanatoriums et des dispensaires d'hygiène sociale was then held. In the afternoon, the congress listened to three papers presented by women: (1) Mlle. Delagrange of Paris, who spoke on the social rôle of the departmental chief woman nurse; (2) Madame Delafontaine of Paris, who dealt with the importance of initiative in the work of visiting nurses in the antituberculosis campaign, and (3) Mlle. Hervé of Rouen, who stressed the importance of hospital training for visiting nurses in the field of social hygiene.

The congress was a genuine success. It was decided to hold the next national antituberculosis congress at Bordeaux in 1930.

First-Aid Stations Along the Highways

A committee of the Touring Club of France is establishing on the Paris-Deauville route thirty first-aid stations, provided with a permanent personnel and direct telephonic communication with the nearest surgeon. Since this highway is kept in excellent condition it is a temptation to speeding, and accidents are frequent. If the results of the experiment justify the expenditure of funds, similar equipment will be provided for other highways.

BUDAPEST

(From Our Regular Correspondent)

April 14, 1927.

Importance of Obstetric Clinics in the Fight Against Syphilis

Dr. Francis Kovács of Budapest, in a paper read before the Budapest Royal Medical Society, said that, in the fight against syphilis, genital syphilis is the point of attack. Syphilitic mothers must be treated in ample time. It is therefore the task of the obstetric clinics and infants' homes, which are in touch with many mothers, to prevent the conveying of infection to the new generation. This end can be best achieved by searching for syphilitic infection in every case. These examinations, the Wassermann test, histologic examination of the placenta, roentgen-ray examination, sedimentation of red blood cells and postmortem examinations made by experts demand that all institutions dealing with pregnant women should be supplied with adequate laboratory service. If one of the analyses is positive, antisyphilitic treatment of the woman must be started, even if clinical manifestations are absent and without regard to the progress of gestation.

Lactation

Professor Preisich recently discussed the technic of lactation before the Interhospital Medical Association. He said that lactation does not as a rule necessitate artificial preparation of the nipple. These procedures tend to dry the nipple, harden it and render it inclined to cracks and fissures. Badly formed nipples and insufficiency of the ducts are in most cases due to mastitis of childhood. Therefore, due care must be taken in childhood to treat such mastitis adequately. Some breasts give milk abundantly, others in average quantity, and still others in small quantity. Also, a distinction must be made between breasts with easy and with difficult flow of milk. The former are rather dependent on constitution, nutrition and general health, the latter to the decreased number of ducts and to their contracted lumens. Much more often lactation is influenced by spasmodic contraction of the sphincteric musculature of the ducts than by their anatomic structure.

Opposition by Hungarian Medical Association to Constitution of New Sickness Societies

Economic difficulties prevailing in Hungary have resulted in a decrease of private medical practice. Although the medical profession hastened to alleviate the position of sick people by reducing fees, still, the only paying class, the merchants and better craftsmen, have resolved to establish a sickness society, in order to lessen the costs of medical attendance. Under the well sounding phrase "Let us save the middle class," the new society attracted thousands of members and intended to employ, with excellent salaries, a very few physicians. Seeing this abuse, the medical association adopted a unanimous resolution according to which the entering into a contract relation as attending physician with any new sickness society is regarded as unethical, and offenders are excluded from membership in the association. Members of the association are allowed to continue their relations with sickness societies that were established long ago if they are working under the terms of their original contracts and if the respective societies do not extend their membership.

Ingenious Method of Educating Children in Hygiene

Dr. János Follmann, district medical officer in Gyula, Hungary, teacher of hygiene in the secondary school, suggested to the teachers of arithmetic, in all classes, to give problems which at the same time that they give practice in arithmetic may automatically convey to their minds some elementary knowledge of hygiene. For instance, in 1911 of every 100,000 inhabitants of Hungary, 358 died of tuberculosis; in France, 218; in Germany, 158; in Italy, 192; in the United States, 159; in England, 147. How many inhabitants of Hungary, France, Germany, Italy, and the United States of America succumbed to tuberculosis in 1911? In 1912, of every 1,000 infants under 1 year of age, 91 died in London, 103 in Paris, 142 in Berlin, 149 in Vienna, and 141 in Budapest. How many infants died in all of these capitals combined? The educating effect of such and similar examples does not need any accentuation.

BELGIUM

(From Our Regular Correspondent)

March 8, 1927.

Postgraduate Medical Instruction

Various attempts to organize postgraduate medical instruction have been made in many countries. The plan usually is to provide courses during the academic vacations, with the idea of furnishing general practitioners with a survey of recent progress in medicine in a more practical and more tangible manner than through textbooks or the medical press. It was on that principle that the so-called *journées médicales* in Brussels were organized. These sessions have become the national medical convention of Belgium and have acquired a measure of international fame. In a more restricted sense, the various medical schools organize courses with clinical demonstrations and practical exercises, such as are calculated to benefit the specialist. In the near future, the Faculty of Medicine of Brussels plans to give a course of theoretical and practical lectures on mental medicine, medicolegal psychiatry and abnormal children, in connection with visits at various institutions, hostels and prisons. The Faculty of Medicine of Liége had likewise undertaken the organization of postgraduate courses, which were also given during vacations. But those were isolated efforts, which did not result in any continuity or regular organization.

However, a movement that was organized during the war has been taken up again; namely, that of the medical graduates of the University of Louvain. A short course was organized in December of last year, during which the leading professors gave lectures on the principal problems interesting medical practitioners. Following that short session, the members present voted to reestablish the medical alumni association of the University of Louvain. The association has a double purpose: it affords the alumni a chance to get together occasionally and renew old acquaintances, and it offers all an opportunity to become rapidly informed in regard to the principal questions being discussed in the fields of medicine and science. The association has decided to hold two meetings each year, one in summer and one in winter. In the intervals, connections are kept up by the medical review of Louvain, which reflects the instruction in the Faculty of Medicine. In order to make this national organization effective and to attract the largest number of physicians, the organizing committee, in addition to the organizers proper, includes two delegates from each province. This will assure a connection with the physicians residing in the more remote centers.

Diphtheria Mortality and Inoculation

Reference has been made to the action taken by the minister of health with regard to the suppression of the gratuitous distribution of antidiphtheritic serum. The action was dictated by reasons of economy, in view of the marked decline in diphtheria mortality. During the five-year period 1919-1923, the mortality rate from diphtheria decreased steadily. Basing his views on the steady decrease but also on the fact that danger still exists, Dr. Fonteyne has published in the *Scalpel* a study on antidiphtheria vaccination in which he recommends systematic inoculation with anatoxin in a manner similar to vaccination against smallpox. If that could be accomplished, in a few years diphtheria would disappear from the country.

Vocational Guidance

The Institut des hautes etudes de Belgique has organized theoretical and practical courses of instruction in vocational guidance for the training of vocational advisers. The course of instruction covers one year. At the conclusion of the course an examination will be given, and on passing such examination students will receive a diploma in vocational guidance. Such a diploma will entitle the holder to special consideration for the post of vocational adviser.

Internment of Mental Patients

The carelessness toward mental patients as still shown by the administrations of most institutions is to be deplored. In fact, aside from the two large cities Brussels and Antwerp, which have a psychiatric service, mental patients are interned directly through the communal administration, and the burgomaster assumes the responsibility of sending them to a psychopathic hospital after a medical examination that is of necessity summary and superficial. In an article in the *Bruxelles Medical*, Dr. Fontaine-Vincent recommends the establishment in each province of a service of general diagnosis attached to the main hospital, provided with a laboratory and equipped with specialists. No mental patient should be interned in a psychopathic hospital without having been examined by experts.

Organization of the Army Medical Department

Since the war, until recently, the medical department of the army had been divided into four subdepartments, each independent of the other, and attached to the four army corps, respectively. The army medical department had no longer a responsible head but depended exclusively on the minister of national defense. The splitting of the department into four independent parts has now been abandoned. The *Moniteur Belge* has just published the new order issued by the minister of national defense, reestablishing the autonomy of the army medical service, and placing it in the hands of a single responsible head, a surgeon general, who bears the title "inspecteur general."

Terminal Disinfection

There has been much discussion in recent years as to the utility of the disinfection of rooms after a contagious disease. The Academy of Medicine of Belgium has taken up the question anew. Mr. Haibe pointed out that, in combating contagious diseases in general, disinfection during the course of the disease is by far the most important. But, until disinfection during the disease has become more general and more effective, terminal disinfection should not be abandoned.

Cruises for Medical Students

The *Bruxelles Medical* is organizing another special cruise for medical students to take place in August. The medical students of all the universities may register their friends in the other faculties. Parents of the students will be accepted, either at the same rate as the students or at a higher schedule. The cruise will cover the following itinerary: Marseilles, Monte Carlo, Genoa, Naples, Palermo, Algiers, Ajaccio, Marseilles.

A more extensive international cruise for students is to be organized for the same period (August). The one charge of $160 includes all expenditures at sea and in Sicily, Greece, Turkey, Syria, Palestine and Egypt. The tour will cover about one month.

BERLIN

(From Our Regular Correspondent)

April 23, 1927.

Vital Statistics of the Large Cities of Germany in 1926

In 1926, there were, in the large cities of Germany, 143,920 marriages (8.5 per thousand inhabitants), 240,275 living births (14.1 per thousand inhabitants), and 174,268 deaths (10.3 per thousand inhabitants). The number of marriages in 1926 was not much greater than in 1925 but showed a marked increase over 1924. The birth rate, which in 1925 after the marked decline extending into the second half of 1924 had increased from 14.1 up to 14.7 living births per thousand inhabitants, dropped back again in 1926 to the low status of 1924. However, the number of illegitimate births in 1926 showed no decrease over 1925 but, during the last months of the year, rather an increase; so that, since 1924, the percentage of illegitimate living births has increased from 12.0 to 14.7, whereas the number of legitimate living births (12.0 per thousand population) has decreased by 0.6 and 0.4 per thousand, respectively, as compared with 1925 and 1924.

Owing doubtless in part to the cool summer and the warm winter temperatures, and in spite of the unusual dampness that prevailed (except in April, August, September and December), the general mortality in 1926 (10.3 per thousand inhabitants) was 0.1 and 0.4, respectively, below that of 1925 and that of 1924, which were already distinguished by their especially low mortality. Not only the birth rate but also the death rate, during the course of the year, showed a rather uniform decline, as compared with the average rate for previous years. The decline in mortality since 1924, except for an increase in the 40-60 age-group in 1925 and in the 60-100 age-group in 1926, was steady in all age-groups, but most marked, in 1925, in the 15-20 age-group, and, in 1926, in the young children group.

The epidemic of typhoid in Hanover caused around 250 deaths, in addition to which there were 230 further deaths from typhoid in the other large cities. Deaths from scarlet fever and whooping cough showed a slight increase, whereas deaths from other infectious diseases in general, even including influenza, decreased.

A decisive influence on the general mortality is exerted by the constantly decreasing number of deaths from tuberculosis. The decrease in 1926 over 1925 was more marked among children under age 15 than in older age groups.

While the number of deaths from cancer and other malignant neoplasms showed few changes in 1926, cerebral hemorrhage and cardiac diseases were responsible for a somewhat greater mortality than usual.

The mortality from puerperal fever showed a decrease in 1926, especially in the second half of the year, and, particularly, the incidence following miscarriages. Suicide increased during the first half of the year, but in the second half there was a perceptible decline. Another factor that contributed to the low death rate was the marked decrease in the number of fatal accidents in the large cities.

A Protest Against the Publication of Physicians' Pictures

In a number of German daily journals and illustrated periodicals the bad custom has been spreading of late of publishing, without due reason, pictures of physicians. At the instance of the directors of the Vereinigung der medizinischen Fachpresse, and, more particularly, of its chairman, Professor Schwalbe, the Berliner Medizinische Gesellschaft has issued the following declaration:

> The Berliner Medizinische Gesellschaft expects its members to prevent so far as they are able the publication of their pictures for advertising purposes in journals.

Marriages

Albert E. Trites, Ladysmith, B. C., to Miss D. Weir of Montreal, Que., at Vancouver, February 28.

Maurice N. Rosenberg, Minneapolis, to Miss Ruth Barbara Goodman of El Paso, Texas, May 19.

Henry Beechum Burdeshaw, Dothan, Ala., to Miss Pauline Byrd of Enterprise, April 14.

Deaths

Arnold Leon Jacoby, Detroit; University of Michigan Medical School, Ann Arbor, 1910; member of the American Psychiatric Association, the Central Neuropsychiatric Association, the American Orthopsychiatric Association and the Michigan State Medical Society; professor of psychiatry Detroit College of Medicine and Surgery, and formerly instructor in psychiatry at his alma mater; on the staff of the Harper Hospital, Detroit, and at one time on the staff of the State Psychopathic Hospital, Ann Arbor; appointed to inaugurate the Psychopathic Clinic, Recorder's Court, in 1921; served in the U. S. Navy during the World War; aged 41; died, April 30, at Springfield, Mass., of peritonitis following appendicitis.

Ernest Alden Wells ⊕ Hartford, Conn.; Johns Hopkins University Medical Department, Baltimore, 1901; past president of the Hartford County Medical Society; secretary of the New England Surgical Society; on the staffs of the Hartford, Mount Sinai and St. Francis hospitals and the Hartford Retreat for Insane, Hartford, the New Britain (Conn.) General Hospital and the Manchester Memorial Hospital, South Manchester; aged 51; died, April 15, following an operation for appendicitis and cholecystitis.

Henry Withington Bradford ⊕ Wolfeboro, N. H.; Medical School of Harvard University, Boston, 1875; member of the Massachusetts Medical Society and the New England Ophthalmological Society; on the staff of the Huggins Hospital; formerly on the staff of the Massachusetts Charitable Eye and Ear Infirmary, Boston; aged 75; died recently, of diabetes mellitus and pneumonia.

Stephen Walter Woodyard ⊕ Greeneville, Tenn.; College of Physicians and Surgeons, Baltimore, 1891; member of the state board of medical examiners, 1913-1917; health officer of Greene County, 1899-1904; member of the House of Delegates of the American Medical Association, 1907-1908; examiner, U. S. Public Health Service, 1919-1920; aged 58; died, February 19.

Seymour Basch ⊕ New York; Medical Department of the University of the City of New York, 1894; member of the American Gastro-Enterological Association; formerly professor of clinical medicine, Fordham University School of Medicine; on the staff of the Lebanon Hospital and at one time on the staff of Mount Sinai Hospital; aged 55; died, April 26.

George Thomas Tuttle ⊕ Milton, Mass.; Medical School of Harvard University, Boston, 1878; member of the American Psychiatric Association and the New England Society of Psychiatry; formerly clinical instructor in psychiatry at his alma mater; at one time superintendent of the McLean Hospital, Waverley; aged 76; died recently, of pneumonia.

Robert Ferguson, London, Ont., Canada; University of Western Ontario Medical School, London, 1890; professor and chief of the department of obstetrics and gynecology at his alma mater; for more than twenty years coroner; aged 72; died, in April, of dilatation of the heart.

Philip Briscoe ⊕ Mutual, Md.; College of Physicians and Surgeons, Baltimore, 1880; past president of the Medical and Chirurgical Faculty of Maryland and the Calvert County Medical Society; aged 72; died, May 4, at the Mercy Hospital, Baltimore, of pneumonia.

Robert Moses Littell, Opelousas, La.; Medical Department of the Tulane University of Louisiana, New Orleans, 1885; member of the Louisiana State Medical Association; aged 65; died recently, at the Eunice (La.) Sanatorium, of mitral insufficiency and diabetes.

Lubin Winfred Sayles, Baraboo, Wis.; Rush Medical College, Chicago, 1893; member of the State Medical Association of Wisconsin; aged 57; died, April 11, at the Wisconsin General Hospital, Madison, of epidemic (lethargic) encephalitis.

George Hampton Putney, Great Falls, Mont.; University of Michigan Medical School, Ann Arbor, 1897; member of the Medical Association of Montana; served during the World War; aged 53; died, April 27, at Palo Alto, Calif.

Virgil H. Lilly, McSherrystown, Pa.; University of Maryland School of Medicine, Baltimore, 1869; formerly justice of the peace; aged 81; died, in April, at the Hanover (Pa.) General Hospital, of injuries received in a fall.

Henry Bernard Kauffman, Washington, D. C.; Georgetown University School of Medicine, Washington, 1894; connected with the U. S. Veterans' Bureau; served during the World War; aged 52; died, April 29, of heart disease.

Jane Wall Carroll ⊕ Paterson, N. J.; University of Buffalo Department of Medicine, 1891; also a lawyer; member of the Medical Society of the State of New York; aged 79; died recently, at Rome, Italy, of heart disease.

Andrew Victor Stephenson, Long Beach, Calif.; University of Nebraska College of Medicine, Omaha, 1896; member of the California Medical Association; veteran of the Spanish-American War; aged 57; died, March 24.

William H. Broomfield, Mound Bayou, Miss.; Meharry Medical College, Nashville, Tenn., 1902; aged 43; died, in April, of injuries received when the automobile in which he was driving was struck by a train.

M. J. Pirtle, Caddo, Okla. (registered, Oklahoma, by the state board of health, under the act of 1908); aged 61; died recently, of injuries received when the automobile in which he was driving overturned.

Frederick Thomas Simpson ⊕ Hartford, Conn.; Medical School of Maine, Portland, 1884; on the staff of the Hartford Hospital and physician to the State Prison; aged 69; was found dead, May 4.

Elmer Thomas Sharpe ⊕ Derby, Conn.; Medical Department of the University of the City of New York, 1895; member of the Florida Medical Association; aged 53; died, April 21, of erysipelas.

Leonard Samuel Wood ⊕ Miami, Ariz.; Hahnemann Medical College and Hospital, Chicago, 1913; on the staff of the Gila County Hospital, Globe; aged 37; died, April 22, in Globe, of pneumonia.

William Lowe Stringer, Falkville, Ala.; Chattanooga Medical College, 1904; member of the Medical Association of the State of Alabama; aged 46; died suddenly, April 25, of cerebral hemorrhage.

Albert C. Baker, Spokane, Wash.; Kansas City (Mo.) Medical College, 1901; member of the Washington State Medical Association; aged 51; died, in April, of carcinoma of the pancreas.

William B. Collins, Lovelady, Texas; Kentucky School of Medicine, Louisville, 1885; member of the State Medical Association of Texas; formerly state health officer; aged 64; died, April 21.

William Thompson Redmond, Crockett Mills, Tenn.; Memphis Hospital Medical College, 1898; also a druggist; aged 59; died, April 21, at the Methodist Hospital, Memphis, of heart disease.

Porter Spaulding Kinne, Paterson, N. J.; New York Homeopathic Medical College, 1872; member of the Medical Society of New Jersey; aged 77; died, April 25, of chronic myocarditis.

George M. Nichols, Higbee, Mo.; College of Physicians and Surgeons, Keokuk, 1886; member of the Missouri State Medical Association; aged 66; died, March 24, at a hospital in Moberly.

Charles Edwin Bowers, Wichita, Kan.; Rush Medical College, Chicago, 1883; member of the Western Surgical Association; on the staff of St. Francis Hospital; aged 71; died, March 23.

Charles Sterling White, Winston-Salem, N. C.; Medical College of Virginia, Richmond, 1925; aged 25; died, April 18, at a local hospital, of injuries received in an automobile accident.

Henry Edgar Southworth ⊕ Los Angeles; Cooper Medical College, San Francisco, 1900; formerly coroner and health officer of San Joaquin County; aged 56; died suddenly, April 28.

William C. Park ⊕ Grafton, Ohio; Western Reserve University School of Medicine, 1902; aged 49; died, April 18, at the Elyria (Ohio) Memorial Hospital, of chronic nephritis.

Robert L. Harris, Jacksonville, Fla.; Medical College of Ohio, Cincinnati, 1882; member of the Florida Medical Association; aged 68; died suddenly, April 26, of heart disease.

John Edward Daly, Ulster, Pa.; Medico-Chirurgical College of Philadelphia, 1905; member of the Medical Society of the State of Pennsylvania; aged 51; died, February 10.

William A. Driver, Chicago; Illinois Medical College, Chicago, 1909; aged 50; died, April 6, at the Providence Hospital, of injuries received in an automobile accident.

Perry Delphos Kelly, Nemaha, Neb.; Ensworth Medical College, St. Joseph, Mo., 1893; aged 56; died, March 21, following an operation for carcinoma of the stomach.

Robert Miller Coulter, Ottawa, Ont., Canada; University of Toronto Faculty of Medicine, 1882; formerly deputy postmaster general of Canada; died, in February.

Martin M. Stiles, Walla Walla, Wash.; Bennett College of Eclectic Medicine and Surgery, 1881; formerly city and county health officer; aged 73; died recently.

Fred E. Lawson, Hedrick, Iowa; Keokuk Medical College, 1900; member of the Iowa State Medical Society; aged 52; died, in March, at a hospital in Ottumwa.

George J. Damon, Medina, Ohio; Cleveland University of Medicine and Surgery, 1876; aged 69; died, April 28, at the Grace Hospital, Cleveland, of nephritis.

Walter Scott Hall, Los Angeles; College of Physicians and Surgeons, Keokuk, 1877; aged 80; died, February 26, at the County Farm, of cerebral hemorrhage.

Joseph Hugh French, Greenville, Texas; College of Physicians and Surgeons, Keokuk, 1879; county health officer; aged 82; died, April 16, of aphasia.

Oscar Henley Snider, Atlanta, Ga.; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1887; aged 61; died, April 15, at a local hospital.

William T. Brown, Atlanta, Ga.; Atlanta Medical College, 1876; member of the Medical Association of Georgia; aged 74; died, April 2, of myocarditis.

Melvin Newton Gardner ⊕ Greenleaf, Kan.; University of Michigan Medical School, Ann Arbor, 1883; aged 69; died, April 6, of angina pectoris.

Ralph G. Yeaton ⊕ Brooklyn; New York Homeopathic Medical College and Flower Hospital, New York, 1909; aged 42; died, April 30.

Albert F. Fitch, Chicago; Illinois Medical College, Chicago, 1902; aged 68; died, April 25, of lobar pneumonia and chronic myocarditis.

George W. B. Smith, Rodman, N. Y.; Hahnemann Medical College and Hospital, Chicago, 1882; aged 70; died, April 4, of arteriosclerosis.

Ellis H. Sparling, Chicago; Chicago Homeopathic Medical College, 1884; aged 84; died, May 8, of carcinoma of the prostate gland.

Gilman Pitt Evans, Baltimore; Baltimore Medical College, 1895; aged 69; died, April 18, of chronic nephritis and myocarditis.

George Haylett Brett, Williamston, Mich.; University of Michigan Medical School, Ann Arbor, 1885; aged 67; died, March 21.

George Miller, St. Marys, Kan.; University of Pennsylvania School of Medicine, Philadelphia, 1878; aged 72; died, April 22.

Joseph V. Klock, Mahanoy City, Pa.; Hahnemann Medical College and Hospital of Philadelphia, 1895; aged 53; died, April 25.

James E. George, Rockwood, Tenn.; Bellevue Hospital Medical College, New York, 1883; aged 70; died, April 11.

James Arthur Wilson, Guelph, Ont., Canada; University of Toronto Faculty of Medicine, 1892; died, February 22.

William B. McClure, Chattanooga, Tenn. (licensed, Tennessee, 1910); aged 77; died, in April, at Orlando, Fla.

Isaiah A. Macon, Rock Hill, S. C.; Leonard Medical School, Raleigh, N. C., 1895; aged 57; died, March 30.

Joseph Walk Irwin, Louisville, Ky.; Jefferson Medical College of Philadelphia, 1873; aged 76; died, in April.

James Aldrich King ⊕ Woonsocket, R. I.; Medical School of Maine, Portland, 1900; aged 46; died, April 22.

Orwin Cullen Hawkins, Biggs, Calif.; St. Louis Medical College, 1871; aged 76; died, in April.

Cullen P. Wolf, Massillon, Ohio; Cleveland Medical College, 1874; aged 77; died, April 25.

Correspondence

MERCUROCHROME IN NOSE AND THROAT

To the Editor:—Apropos of the recent article in The Journal (April 30, p. 1391) by Earl B. McKinley and Margaret Holden on the dangers attending the intraspinal injection of mercurochrome, allow me to voice my own opposition to the prevalent use of this remedy in the treatment of nose and throat conditions, especially in children. It has become the almost universal practice in this part of the country to use various strength solutions of mercurochrome in the treatment of acute pharyngeal conditions and acute cold in the head. Mothers are now dropping solutions of this remedy in the nasal cavities of young children just as they previously had done with mild silver protein solutions, and in some instances even sprays have been used.

I have recently seen two cases in which I am sure this remedy produced a decided toxic effect from its use in the nose. Small children and even adults cannot help but swallow a large amount of any liquid dropped into the nose and allowed to run back into the nasopharynx. I feel that a note of warning should be sounded as to the danger in flooding the nasal cavities with a mercurochrome solution.

Dunbar Roy, M.D., Atlanta, Ga.

SPECIAL LENS FOR HEAD MIRROR

To the Editor:—To overcome the disadvantages of presbyopia, many otolaryngologists must change from their ordinary street glasses to their near vision ones, or use a device sold by the instrument makers consisting of a clip to hold a small lens, which clip is attached to the head mirror by three hooks, one in the sight hole and two on the periphery of the head mirror. This is a very handy device, but unfortunately it often slips at most inopportune moments. To overcome this I had a one centimeter lens plus 2 D. spheres made which I fastened by sealing wax, which is permanent but not neat. A few days ago I had the Uhleman Optical Company grind down my presbyopic correction lens to fit the sight hole and it is such a beautiful, neat and permanent job that I want to pass the information on to others like myself.

Edward J. Bernstein, M.D., Detroit.

"TISSUE HYPERSENSITIVENESS FOLLOWING TOXIN-ANTITOXIN"

To the Editor:—In The Journal, April 2, is an article by Drs. Gatewood and Baldridge on "tissue hypersensitiveness following the administration of toxin-antitoxin (phenomenon of Arthus)."

The question of whether toxin-antitoxin with its minute amount of antitoxic globulin sensitizes individuals to such a degree that they develop accelerated or more serious serum reactions when they receive a later dose of serum is one of such importance that in reporting cases we should be careful to be certain to give suitable emphasis to the different factors involved. The patient showing severe symptoms with the second dose of antitoxin gave the following history: She had a negative Schick test in January, 1925, but in spite of this received three injections of toxin-antitoxin in February. In November, 1925, she had an acute infection involving the ethmoid, sphenoid and maxillary sinuses. There was also an acute adenitis. November 27, cultures from the nose contained many organisms, morphologically typical of diphtheria bacilli; the nares were filled with crustations resembling diphtheritic membrane, and a diagnosis of nasal diphtheria was made. A desensitizing dose of a few minims of antitoxin was injected beneath the skin of the right arm without reaction. Thirty minutes later an intramuscular dose of 20,000 units was given into the right hip. An immediate reaction did not occur. During the following three days the appearance of the nares changed but little. December 3, the maxillary sinuses were punctured. On the afternoon of December 3, six days after the antitoxin, there suddenly developed an acute, very marked and generalized enlargement of the superficial lymph nodes. The next day the sites of serum injection, in the right arm and thigh, were markedly swollen, red and tender. Cultures for diphtheria taken, December 3, and again, December 4, contained many diphtheria organisms. On the afternoon of December 5, the soft palate and uvula became edematous, but there was no pseudomembrane. At 8:30 a desensitizing dose of antitoxin was given in the arm. No immediate reaction developed, and at 9 o'clock 40,000 units of antitoxin was given intramuscularly in the left hip. Three hours after the injection, the hip and arm were greatly swollen. "The local appearance of the thigh and arm remained about the same for two days, except that the edema and redness gradually spread until the whole thigh and arm were involved and each was twice the size of its fellow. On the third day, the area which had been blanched began to take on the mottled appearance of extravascular blood. The temperature was of the septic type. On the fifth day following injection, an incision was made into the mass on the outer aspect of the left thigh. There was tissue necrosis, but frank pus was absent. A serosanguineous discharge containing necrotic tissue and many fat droplets started soon after the incision." The patient made a slow recovery.

The comments I wish to make on this article are the following: In the first place, the patient had a negative Schick test and following that three immunizing injections of toxin-antitoxin, so that it is difficult to believe she had diphtheria. Her symptoms were those of a septic infection of the head sinuses. There was apparently no test made for virulence of the diphtheria-like bacilli. In my opinion, it is impossible to conceive of a case of diphtheria showing the symptoms here related that would continue for eight days after 20,000 units of antitoxin had been given without any change in the local condition. That diphtheria-like bacilli were found, whether virulent or not, was not sufficient reason in such a case to make a diagnosis of diphtheria or to give a second dose of 40,000 units of antitoxin.

From my point of view, the more important observation is that the first dose of 20,000 units of serum was not followed by an accelerated reaction, which would certainly have been true if the patient had been sensitized by the toxin-antitoxin. There is nothing unusual in the fact that on the sixth day rather severe serum sickness developed, showing both local and constitutional symptoms. On the ninth day, a second large dose of antitoxic serum was given which showed an accelerated reaction and much more severe local symptoms, and developed the extremely rare condition of necrosis in the involved area. As the first injection of antitoxic serum did not produce these symptoms, it is certainly only reasonable to consider that the more severe reaction of the second injection was due to the sensitizing effect of the first dose of serum given eight days before. This is not an infrequent occurrence.

It seems to me, therefore, that there is no reason to attribute the accident to the toxin-antitoxin injections. When so many infants and children are receiving toxin-antitoxin or toxoid, there must be a certain number of children who later develop symptoms of disease. One should use careful judgment before ascribing these to the toxin-antitoxin or to the toxoid. Last week I received a letter from a state health officer telling me of twelve cases of wrist-drop following toxin-antitoxin. I asked him about the possibility of lead poisoning, and he found 0.15 part per million of lead in the school drinking water. I might add that in many thousands of cases we have had as good results with the diphtheria toxoid as with the toxin-antitoxin; but the local reactions in the older children are somewhat more severe. In preschool children they are rather less. There is no reason, therefore, why any one who hesitates to use toxin-antitoxin should not use toxoid. I have not been able to convince myself that such a change is wise at the present time.

William H. Park, M.D., New York.

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

BOILED MILK OR PASTEURIZED MILK

To the Editor:—What objection is there to boiling milk in a double boiler for one-half hour or longer for a child past 1 year of age? Will taking cod liver oil, orange juice, tomato juice and vegetables overcome the objection? Is the milk we get from our so called big dairies safe if boiled from one to three minutes? All dairies claim that they sterilize the containers and pasteurize the milk.

H. E. Goldberger, M.D., Chicago.

Answer.—There is little objection to heating milk in a double boiler for an hour or longer, although such a procedure is unnecessary. Fresh vitamins should be included in the diet, however. Milk produced under our present standards of cleanliness and inspection may be considered safe for infants after it has been boiled three minutes.

COUNTING BLOOD PLATELETS

To the Editor:—In the *Archives of Pathology and Laboratory Medicine* (**2**: 514 [March] 1927) under Abstracts from Current Literature, there is an abstract of an article on counting blood platelets, by F. B Hofmann (*Deutsche med. Wchnschr.* **52**: 861 [May 21] 1926), in which appears the sentence, "In healthy persons the counts average 760,000 in men and 682,000 in women." Are not these figures considerably higher than those generally accepted heretofore, namely, between 224,000 and 330,000 per cubic millimeter of blood? Will you please give me your opinion on this question? Please omit my name.

M D., Illinois.

Answer.—H. M. Feinblatt and A. H. Eggerth in "Clinical Laboratory Medicine" (William Wood & Co, 1925, page 15) quote Wright and Kinnicut, that the normal values for blood platelets range between 224,000 and 330,000 per cubic millimeter. The reason for the values given by Hofmann can be found in an abstract of his article published in The Journal, July 24, 1926, p. 287. This abstract read as follows: "Hofmann directed Flossner and Danz to investigate the best fluid for preservation of blood platelets. They found this in the Tyrode solution, with addition of about one fifth of its volume of a 0.1 per cent solution of mercuric chloride. The counts made in healthy subjects averaged 760,000 platelets in men and 682,000 in women. The usual methods yield less than one half of this number. This is due to the fact that the small—and probably young—platelets break up with the other methods. Hemoconia seem to be products of their disintegration."

WASSERMANN TEST AND HECHT GRADWOHL MODIFICATION

To the Editor.—Is it true that, when a Wassermann test of the blood is negative and of the same blood a Hecht Gradwohl test is positive, there is thereby established a serologic diagnosis of syphilis? Please omit signature.

M.D., Arkansas.

Answer.—There has been considerable discussion in the literature as to the relative sensitivity of the ordinary Wassermann technic and that of the Hecht-Gradwohl procedure. It is probably true that the latter is somewhat more sensitive than the original Wassermann technic, but this slight difference would hardly warrant a positive statement that a positive serologic diagnosis of syphilis was established, simply on the basis of this difference in sensitiveness. There are many factors which influence the proper outcome of a Wassermann test, whatever the technic employed may be, so that one would have to know the exact technic followed in the tests in question in order to arrive at a definite conclusion. It is an everyday occurrence to find slight variations in the reports of different workers on the same serum, but these discrepancies are usually limited to degrees of positivity rather than to a negative report on the one hand and a positive report on the other, although this condition does occasionally obtain. There is little question that some procedures may give a frank negative and other technics a one or two plus positive result, but under such conditions it is very difficult for a serologist to make a definite statement unless he is thoroughly familiar with the clinical history of the case. If this question were to be answered directly, it might be said that a serological diagnosis of syphilis is not established by the mere fact that a Hecht-Gradwohl test was positive when a Wassermann test was negative. The degree of positivity of the Hecht-Gradwohl test and the method of procedure in making the Wassermann test would have to be known before a more definite statement would be justified, and even such facts would not be sufficient to establish a positive diagnosis on such a variation. This answer presupposes, of course, that both tests have been performed by competent workers.

COLD EXTREMITIES

To the Editor:—I have a girl patient, aged 18 years, whose hands and feet are always red and usually cold The condition is apparently due to defective capillary circulation. I should like to know whether this state has a technical name, and if you can tell where I may find a description of it in textbooks I shall appreciate it I am surprised to find that her blood pressure is 140 systolic and 80 diastolic. Heart examination is negative. I am not hopeful of the condition being remediable, but I should like to read all that is known about it. The condition is in no way associated with her employment.

James W. Walker, M.D., Chicago.

Answer.—In the case described in which the hands are cold and red, two factors are involved, the lowered surface temperature and the dilatation of the surface capillaries and venules. Surface temperature is regulated by the amount of arterial blood reaching the skin through the arterioles. When the hand is cold the fundamental disturbance may be organic closure of the larger arteries with decreased amount of blood reaching the arterioles, or vasoconstriction and diminished surface circulation. In the hot extremity, vasodilatation and increased surface blood are present. The color of the skin is due to variations in the surface capillaries and venules and their contained blood. Pallor is due to constriction of these vessels with a diminished exposure of capillary blood. Cyanosis indicates dilated capillaries and venules, and an increased number of open capillaries with static or retarded flow of capillary blood. The blueness of the blood indicates an abnormal unsaturation of the capillary blood with oxygen due to retardation of the flow. However, the flow may be retarded but not to a degree to produce cyanosis.

In the case in question presenting cold, red extremities, it is assumed that palpable vessels are open and pulsating and that vasoconstriction of the arterioles is responsible for the lowered surface temperatures. The capillaries are dilated and many are open. Either the flow through these is sufficiently rapid to prevent abnormal oxygen unsaturation (cyanosis) of the capillary blood, or the local metabolism is carried on at a diminished rate and less oxygen is taken from the capillary blood. In view of the coldness of the tissues, probably both factors are concerned in the production of the color of the capillary blood in this case. Environmental cold plus diminished surface circulation prevent the tissues from utilizing the oxygen that is available, and the blood retains a red color.

These vasomotor disturbances are frequently observed in young girls. The hands and feet are usually cold, moist and cyanotic; the condition is designated as acrocyanosis, acroasphyxia. There is no term to indicate the cold, red hand or foot. The underlying condition is the same in the two types. The cause of these disturbances is not known. Mueller believes they are constitutional and groups them as evidences of "vasomotor constitution." When the vasoconstrictive disturbances are present in sufficient degree to produce, in addition to the color changes, pallor and cyanosis, pain or trophic disturbances and are intermittent in character, the condition is designated as Raynaud's disease.

The cold, red extremity is frequently attributed erroneously to erythromelalgia. The underlying disturbance in the latter condition is intermittent vasodilatation, with increased heat and redness. The treatment of the vasoconstrictive disturbances is usually unnecessary since the condition is not troublesome and has no particular significance. Measures to increase the general vascular tone, as hot and cold contrast baths for hands and feet, increasing the body weight and outdoor life, are usually advised.

Further reference may be found in Buerger's "The Circulatory Disturbances of the Extremities."

PERTUSSIS VACCINE AS A PROPHYLACTIC

To the Editor:—Is pertussis vaccine of any value as a prophylactic? Kindly omit name.

M.D., Chicago.

Answer.—Pertussis vaccine seems to have little if any prophylactic value. This might possibly be due to a number of factors:

1. The time interval between exposure and onset is usually so brief that the prodromal stage is already well established when the vaccine is administered.
2. If immunity is so acquired in an unexposed child, the period of protection is very brief.
3. The strength, polyvalence and freshness of the vaccine apparently are concerned in the therapeutic efficacy, and probably also in its prophylactic value.
4. Apparent prophylaxis may be due to: (*a*) insufficient or questionable exposure (the disease is very much less contagious during the paroxysmal stage); (*b*) nonsusceptibility of the exposed child.

DOSAGE OF EMETINE FOR INFANTS

To the Editor:—Please advise me as to the use of emetine hydrochloride in infants. Is there danger in giving this drug by injection to the amount of 0.02 or 0.03 Gm. for four or five consecutive days to a one year old child? What is the amount that can be used with safety for this age? Please omit name.

M.D.

Answer.—The dose of emetine hydrochloride for a 1 year old child is generally placed at 0.005 Gm., though this dose has been given twice daily. Such a dose may be administered intramuscularly for four or five consecutive days, but should be discontinued immediately if diarrhea or other symptoms of intolerance occur.

CORNEAL AND PHARYNGEAL REFLEX DURING ANESTHESIA

To the Editor:—Which is the later to disappear during anesthesia: the corneal or the pharyngeal reflex? I have observed that the pharyngeal reflex goes later than the corneal, because during the performance of tonsillectomy and adenoidectomy the child will usually gag and retch even though the corneal reflex has disappeared. However, some of my medical friends differ with me and so I shall be glad if you will clear up the fog of the situation for us.

Louis S. Smith, M.D., Brooklyn.

Answer.—A survey of the literature relative to the rate of disappearance of the pharyngeal and corneal reflexes under anesthetics has failed to reveal any data on the subject with the exception of one statement by Cushny that the corneal reflex was one of the last to disappear. At the request of The Journal, a number of experiments on dogs were performed by the class on physiology of the nervous system at the University of Chicago, three types of anesthetic agents being given in doses designed gradually to bring on a more or less profound state of anesthesia. The drugs experimented with were paraldehyde, barbital-sodium and ether. The paraldehyde was given to the extent of 1.5 cc. per kilogram of body weight by mouth; barbital was administered by mouth also, the dosage being 225 mg. per kilogram of body weight. Ether was administered by inhalation up to the point of disappearance of all reflexes.

The rate of disappearance of the two reflexes in question was noted during introduction to profound anesthesia, and also the relative rate of reappearance during the period of recovery. The animal was then again anesthetized more deeply and the rate of disappearance of the pharyngeal and corneal reflexes again noted. Whereas but one experiment was made with ether and one with barbital sodium, three experiments were done on dogs under paraldehyde anesthesia. The general results of the experiments were as follows:

1. If by pharyngeal reflex is meant contraction of the superior and middle constrictors of the pharynx and elevation of the soft palate on mechanical stimulation of the faucial, laryngeal and posterior pharyngeal region, all experiments indicate that such contractions disappear before the

reflex closure of the eyelids on either stimulation of the cornea directly or conjunctival mucous membrane, or on touching the eyelids themselves. It is, of course, difficult in animals to make tests on the pharyngeal reflex when the animals are not under the influence of any anesthetic whatever. As the animals are put to sleep and the jaws relax sufficiently to allow one to open the mouth widely in order to make the test, reflex movements of the pharyngeal region occur almost only in the conjunctiva with or preceding the act of deglutition. Occasionally mechanical irritation of the posterior pharyngeal wall will cause elevation of the palate without simultaneous or subsequent constriction of the superior middle constrictors of the pharynx. At a time when the conjunctival reflex is quite pronounced, even marked irritation of the tonsillar, palatal region, pharyngeal region or laryngeal region will not give any movements of the pharynx or will give only an occasional act of deglutition. In fact, one can introduce an applicator directly into the larynx at this time and only elicit occasionally a slight cough and temporary inhibition of respiration.

So far as was noted in these experiments, the corneal and conjunctival reflexes are still present at a time when even more violent manipulation of the pharyngeal region are used and ineffective. Increasing the anesthesia a trifle more leads likewise to abolition of the corneal and conjunctival reflex.

2. The closure of the palpebral fissure by touching the palpebra with the tip of the finger resists considerably longer than the closure of the eyes on touching the cornea with the applicator; or, if both are present in a given state of anesthesia, the corneal reflex disappears much earlier on continuing the application of the stimulation than the winking reflex elicited by touching the edges of the partially closed eyelids.

3. In these experiments, simple mechanical stimulation of the mucous membrane was employed. Presumably in experiments on human beings in which an actual cutting operation was done in the pharyngeal or faucial region, as during a tonsillectomy, the knife actually cuts nerve fibers (of pain) and this form of stimulation is, of course, much more powerful and is more likely to elicit reflex effects in the faucial region than the slight touching of the cornea or conjunctiva performed at the same moment.

CONTINUOUS BATH IN TREATMENT OF BURNS

To the Editor:—Is the continuous bath often used now in treatment of extensive burns of the body surface, both of the second and the third degree? If so, with what measure of success as compared with ordinary topical applications? Please describe in detail technic of giving continuous bath for extensive burns. Please omit name. M.D., Iowa.

ANSWER.—The continuous bath treatment of burns is not frequently used because of the special apparatus necessary, under the constant supervision of a trained attendant. It is of decided value for the first few days in extensive second and third degree burns of the body, especially when the patient is in coma, with a small, rapid pulse, dyspnea and anuria. Continuous baths relieve pain, are sedative, and improve the circulation of the skin. They prevent to some extent the absorption of toxic products. It is difficult to give the continuous bath without a special large tub provided with temperature regulators, large outflow pipes, and rims supplied with hooks for the attachment of supporting sheets and pillows.

The following rules have been found necessary for the giving of the continuous bath, because of the fatal accidents that have occurred:

1. First fill the tub with hot water to warm it. The hottest water should not be more than about 120 F.
2. Fill the tub and regulate the temperature to 98 F. before placing the patient in it.
3. Test the temperature every thirty minutes, at least. Keep it at 98 F.
4. After the temperature is adjusted, shut off the intake. Do not permit a continuous flow.
5. Keep the ears dry.
6. A trained attendant must not leave the room while the patient is in the bath.
7. Avoid exposure on removal from the bath.

Some other recognized method for the treatment of burns, such as the use of boric acid or a 10 per cent sodium bicarbonate solution dressing, but avoiding the use of irritating or toxic antiseptics, will ordinarily be preferred. In addition, fluids, stimulants and alkalis must be given as necessary.

INCREASED METABOLIC RATE

To the Editor:—Please give me information regarding the clinical conditions producing or accompanied by increased metabolic rate, aside from thyroid disturbance. I am particularly interested in knowing whether any of the neuroses may cause an increase. Please do not publish name. M.D., Illinois.

ANSWER.—Except for certain of the leukemias, fevers and diabetes in certain stages, it is questionable whether increased metabolic rate occurs unless there is some involvement of the thyroid gland. There is considerable work being done on other conditions, such as heart disease and essential hypertension, in which an increased metabolic rate is found. The increased metabolism in heart disease appears only during decompensation. As yet the exact significance of the increased rate with hypertension is not definitely established; but a more thorough investigation of such cases would make it very probable that they too belong to the thyroid group. It is exceedingly doubtful whether any of the neuroses by themselves are associated with increased metabolism.

STABILITY OF KAHN'S ANTIGEN

To the Editor:—In an article abstracted in THE JOURNAL, J. E. Houghton states the antigen used in Kahn's test for syphilis is stable. On the other hand, an American house at Rio says the antigen will keep only a few months. What is the truth? M. V. FONSECA, JR., M.D., Alegrete, Brazil.

ANSWER.—Four or five years ago it was believed that antigen for the Kahn test was not stable. Now, however, it is known that this antigen is a stable product (Kendrick and Jenks: Stability of Standard Kahn Antigen, *J. Lab. & Clin. Med.* **11**:369 [Jan.] 1926). The antigen is known to keep for several years and very likely indefinitely. It should be stored in the dark at room temperature.

DRYNESS OF THE MOUTH

To the Editor:—A man, aged 58, who has been under my care for some time, has a blood pressure never less than 180 systolic and 120 diastolic; at times it is even as high as 225 systolic. His heart is somewhat dilated to the left and downward; there is a soft mitral murmur, with distinct evidence of myocardial degeneration. There is shortness of breath. He is troubled with frequent urination and nocturia; the urine has never showed any casts or sugar, and only a trace of albumin. The prostate gland is enlarged and there is a suspicion of hard nodules. The patient complains of "crampy" pain in the lower abdomen. He has always been of a very neurotic disposition, self-conscious and self-centered, and has not worked for the last twenty years. One of the most troublesome symptoms is a terrible dryness of the tongue, lips and buccal mucosa, unaffected by all ordinary methods of relief. I am rather afraid to use any of the pilocarpus preparations on account of the patient's heart. Would you kindly direct me to some literature on this subject, and would you also mention some of the drugs that would be useful in this case? Kindly omit my name. M.D., Connecticut.

ANSWER.—The question as our correspondent presents it is not so much one of dryness of the mouth as a determination of the underlying condition. A patient with left ventricular hypertrophy, high blood pressure, shortness of breath, frequent urinations and nocturia suggests chronic interstitial nephritis, and it would be safe to make a diagnosis on that information alone. The patient can even go into uremia and show little, or even nothing in some cases, in the way of albumin or casts.

A dry mouth is a rather frequent condition in chronic interstitial nephritis, especially as the patient approaches uremia. A phenolsulphonphthalein test will give information reliable enough for clinical purposes; or the test devised by Dr. Olmsted, which requires only a hygrometer and a measuring glass, will give information as to chronic interstitial nephritis.

If the specific gravity is taken of several specimens of urine and is found to be of low value and not to vary more than a few points, it is good evidence that such a condition exists. Another condition also could be responsible. The prostate is enlarged and nodular, and the patient complains of pains in the lower abdomen. Is there enough retention in the bladder to account for the crampy pains? Carcinoma of the prostate would also have to be considered. Obstruction due to any prostatic trouble with consequent kidney changes could account for the dryness of the mouth. In such a condition, however, one would expect to find some evidence of cystitis.

Any febrile condition could be responsible for dryness of the mouth. The neurotic disposition has nothing to do with it. Neurotic people are more apt to get a temporary dryness because of excitement, but not such a persistent dryness The treatment should be directed to the underlying cause One or two simple remedies can give the patient a great deal of comfort glycerin, one part, in five or six of water, with a little lemon juice, will add to his comfort Better still is old fashioned linseed tea flavored with lemon or orange juice, to which a little glycerin can be added The linseed tea may be taken in any amount It is sufficiently mucilaginous to keep the mouth moist much longer than water

Gastric conditions also should be ruled out; but there seems to be enough in the genito-urinary tract to account for the symptoms

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Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama Montgomery, July 12 15 Sec, Dr S W Welch, Montgomery

California San Francisco, June 27 30 Sec, Dr Charles B Pinkham, 908 Forum Bldg, Sacramento

Colorado Denver, July 5 Sec, Dr David A Strickler, 1011 Republic Bldg, Denver

Connecticut State Board of Healing Arts, New Haven, June 4 Prerequisite to examinations Applications to be filed by May 21 State Board of Healing Arts, Box 1895, Yale Station, New Haven Regular Hartford, July 12 13 Sec, Dr Robert L Rowley, 79 Elm St, Hartford

Delaware Wilmington, June 21 23 State Society and Homeopathic Pres, Dr H W Briggs, 1026 Jackson St, Wilmington

District of Columbia July 12 Sec, Dr Edgar P Copeland, Suite 110, 1801 Eye Street Washington

Florida Tampa, June 13 14 Sec, Dr Wm M Rowlett, Box 603, Tampa

Georgia Atlanta and Augusta, June 8 10 Sec, Dr J W Palmer, Ailey

Illinois Chicago, June 28 30 Supt of Regis, Mr V C Michels, Springfield

Indiana Indianapolis, June 21 23 Sec Dr E M Shanklin, 421 State House, Indianapolis

Iowa Iowa City, June 7 9 Director of Exams and Licensure, Mr H W Grefe, Des Moines

Kansas Topeka, June 21 Sec, Dr A S Ross, Sabetha

Kentucky Louisville, June 21 23 Sec, Dr A I McCormack, 532 W Main Street, Louisville

Louisiana New Orleans June 9 11 Sec, Dr Roy B Harrison, 1507 Hibernia Bank Bldg, New Orleans

Maine Bangor, July 5 6 Sec, Dr Adam P Leighton, Jr, 192 State Street, Portland

Massachusetts Boston, July 12 14 Sec, Dr Frank M Vaughan, 144 State House Boston

Maryland Regular, Baltimore, June 21 24 Sec, Dr Henry M Fitzhugh, 1211 Cathedral St Baltimore Homeo Baltimore, June 14 Sec Dr J S Garrison, 517 Old Orchard Rd, Ten Hills, Baltimore

Michigan Ann Arbor, June 14 16 Detroit, June 20 22 Sec, Dr Guy L Connor, 707 Stroh Bldg, Detroit

Minnesota Minneapolis, June 21 23 Sec, Dr A E Comstock, 636 Lowry Building St Paul

Mississippi Jackson, June 21 22 Sec, Dr Felix J Underwood, Jackson

Missouri St Louis, July 13 15 Sec, Dr James Stewart, Jefferson City

Nebraska Omaha, June 7 9 Sec, Mr Lincoln Frost, State House, Lincoln

New Jersey Trenton June 14 15 Sec, Dr Charles B Kelley, 28 West State Street Trenton

New York Albany, Buffalo, New York and Syracuse, June 27 30 Chief, Professional Examinations, Mr Herbert J Hamilton, State Education Bldg, Albany

North Carolina Raleigh, June 21 Sec, Dr John W MacConnell, Davidson

North Dakota Grand Forks, July 5 8 Sec, Dr G M Williamson, Grand Forks

Ohio Columbus, June 7 11 Sec, Dr H M Platter, Hartman Hotel Bldg, Columbus

Oregon Portland, July 5 7 Sec, Dr M K Hall, 816 Pittock Block, Portland

Pennsylvania Philadelphia and Pittsburgh, July 5 9 Dir Professional Education Bureau Mr C D Koch, Harrisburg

Rhode Island Providence, July 7 Sec, Dr B U Richards, Providence

South Carolina Columbia, June 28 Sec, Dr A Earle Boozer, 505 Saluda Ave, Columbia

South Dakota Huron, July 19 Dir Medical Licensure, Dr H R Kenaston, Bonesteel

Tennessee Memphis, Nashville and Knoxville, June 17 18 Sec, Dr A B DeLoach, 733, Medical Arts Bldg Memphis

Texas Austin June 21 23 Sec, Dr T J Crowe, 918 Mercantile Bank Bldg, Dallas

Vermont Burlington, June 22 24 Sec, Dr W Scott Nay, Underhill

Virginia Richmond, June 15 18 Sec, Dr J W Preston, Box 444, Richmond

Washington Seattle, July 11 Basic Science Examination, Seattle, July 7 8 Ass't Director, Mr George L Berger, Olympia

Wisconsin Milwaukee, June 28 30 Sec, Dr Robert E Flynn, La Crosse Basic Science Board Milwaukee, June 27 Sec, Dr M F Guyer Madison

Wyoming Cheyenne, June 1 2 Sec, Dr G M Anderson, Cheyenne

SCHOOLS OFFERING SUMMER COURSES IN 1927

Prepared by the Council on Medical Education and Hospitals

ALABAMA

University of Alabama School of Medicine, University—Courses in gross anatomy, embryology, physiologic chemistry, surgery, materia medica and pharmacy will be offered to medical students, conditioned students from other medical schools and others qualified to take them. Classes will be limited to forty students in each subject. The summer quarter will be divided into two terms The first term begins, June 1, and ends, July 12 The second term begins, July 13, and ends, August 23 Dr Clyde Brooks, dean

CALIFORNIA

Stanford University School of Medicine, 2398 Sacramento Avenue, San Francisco—Courses will be offered to qualified graduates in medicine and undergraduates of this and other schools in clinical and laboratory work in the following departments as special workers pharmacology, pathology, general medicine, tropical medicine, diabetes, electrocardiography and basal metabolism, chest diseases, pediatrics, neuropsychiatry, skin and syphilis, metabolism laboratory, radiology, physical therapy technic, general surgery, orthopedic surgery, genito-urinary surgery, ophthalmology, otorhinolaryngology, surgical pathology, obstetrics and gynecology, gynecologic laboratory, obstetrics, female urology The summer term begins, June 15, and ends, September 1. Dr William Ophuls, dean

University of California Medical School, Parnassus and Third avenues, San Francisco—Courses for qualified graduates in medicine, given in general medicine, pediatrics, gastro-intestinal diseases, dermatology, syphilology, radium therapy, general surgery, orthopedic surgery, otorhinolaryngology, ophthalmology, genito-urinary diseases, surgical pathology, roentgen ray, obstetrics and gynecology, circulatory diseases, laboratory diagnosis, neurology and neuropsychiatry The summer term begins, June 6, and ends, July 2 Dr. Eugene S Kilgore, director, graduate courses

COLORADO

Colorado School of Tuberculosis, Colorado Springs—A summer course in tuberculosis will be offered to graduates in medicine from July 1 to August 1 The schedule provides for lectures, clinics and individual instruction From August 1 to August 10, opportunity will be offered for practical work in the various sanatoriums The preference of the students for special subjects, such as laboratory methods, roentgen ray, artificial pneumothorax, and physical diagnosis, will be consulted as far as possible Dr G Burton Gilbert, secretary

University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver—Courses for medical students will be offered in gross anatomy, histology, neuro-anatomy, embryology and biochemistry A course in clinical pathology is also offered primarily for nurses and others who wish to qualify as laboratory technicians The first term begins, June 20, and ends, July 21 The second term begins, July 25, and ends, August 27 Dr Maurice H Rees, dean.

CONNECTICUT

New Haven School of Physiotherapy, 303 Whitney Avenue, New Haven—Courses offered to well qualified graduates in medicine can be given at any time, but during the summer, from May to October The plan is to group them on the first of each month Individual instruction may be had and also practical work on apparatus Dr Harry Eaton Stewart, director

DISTRICT OF COLUMBIA

Howard University School of Medicine, Corner of Fifth and W streets, N W, Washington—Courses open to graduates of recognized medical colleges Instruction given in general surgery, gynecology, genito-urinary surgery, internal medicine, otolaryngology, ophthalmology, roentgenology, public health, laboratory methods and physical diagnosis Dr Edward A Balloch, dean

Georgia

Emory University School of Medicine, 50 Armstrong Street, Atlanta.—A two weeks' course in clinical medicine will be offered to graduates and undergraduates in medicine. The course is primarily for practitioners who wish a brief period of clinical contact. Should the demand justify it, it is probable that a course in clinical microscopy will be offered. Dr. Russell H. Oppenheimer, dean.

Illinois

Rush Medical College, Wood and Harrison streets, Chicago.—This school has the four quarter system, and therefore the usual summer course is offered to undergraduates. Dr. Ernest E. Irons, dean.

Courses in hygiene, public health and related subjects will be offered to qualified students and to graduates in medicine. Summer quarter is divided into two terms. The first term begins, June 20, and ends, July 27. The second term begins, July 28, and ends, September 2. Application should be made to the University Examiner (University of Chicago) at least two weeks in advance of the opening of the quarter.

University of Illinois College of Medicine, Honore and Congress streets, Chicago.—Graduate courses for physicians will be offered in the departments of anatomy, physiologic chemistry, dermatology and syphilography, internal medicine, laryngology, rhinology and otology, neurology and psychiatry, ophthalmology, obstetrics and gynecology, pathology and clinical pathology, pharmacology and experimental therapeutics, pediatrics, roentgenology and surgery. The course begins, June 1, and ends, June 30. In some fields the courses will be given six days a week, others only three, four or five days a week. Registration will be limited to a small number. The full-time registration fee will be $100; for half-time registration (or less), $50. Mr. William H. Browne, secretary.

Indiana

Indiana University School of Medicine, Indianapolis.—Beginning June 10 and lasting for six weeks there will be offered to the physicians of Indiana short courses in biochemistry, pharmacology, physical diagnosis, ward visits, general pathology, physical therapy, modern drug therapy and biotherapy, disease production and resistance, and a nutrition course. Clinics are held in the following subjects: dermatology, genito-urinary, gynecology, ophthalmology, rhinology, otology, laryngology and surgery. Ample clinical material in both hospital and dispensary patients is available for these clinics. Courses limited to a certain number of students. For further information address the registrar.

Iowa

State University of Iowa College of Medicine, Iowa City. —Courses offered to undergraduate students in anatomy, histology, embryology, chemistry (research) and head specialties. The summer course is for six weeks and begins after the close of the regular academic year in June. Dr. L. W. Dean, dean.

Kansas

University of Kansas School of Medicine, Lawrence-Kansas City.—Courses are offered to qualified graduates in medicine and undergraduate students in pathology, anatomy, physiology, biochemistry and bacteriology. The only course given at Kansas City is that in pathology. The summer session will continue ten weeks and is divided into two terms of six weeks and four weeks, respectively; the first term begins, June 8, and ends, July 16; the second term begins, July 18, and ends, August 12. Mr. George O. Foster, registrar, room 102, Administration Building, Lawrence.

Maryland

University of Maryland School of Medicine, Lombard and Greene streets, Baltimore.—A review course for physicians (not a postgraduate course) will be offered during the month of June. This course consists of daily instruction in medicine, surgery, specialties (obstetrics, gynecology, ophthalmology, laryngology, etc.). Dr. J. M. H. Rowland, dean.

Michigan

University of Michigan Medical School, Ann Arbor.—Courses open to qualified graduates in medicine, undergraduates of this and other schools and all persons qualified to pursue them to advantage. Instruction given in anatomy, bacteriology, dermatology and syphilology, internal medicine, neurology, obstetrics and gynecology, ophthalmology, otolaryngology, pathology, pediatrics, pharmacology and materia medica, physiologic chemistry, physiology, roentgenology and surgery. The course begins, June 27, and ends, August 5. Some of the laboratory courses that may be elected to advantage by students from other schools and colleges of the university will close, August 19. Dr. Hugh Cabot, dean.

Minnesota

University of Minnesota Medical School, Minneapolis.—This school has the four quarter system, and therefore the usual summer course is offered to both graduate and undergraduate students.

Missouri

St. Louis University School of Medicine, 1402 South Grand Avenue, St. Louis.—Work adjusted to needs of three classes of students:

1. Undergraduate medical students. Courses in the laboratory branches are provided, so that students who desire may secure advanced standing or remove deficiencies in work previously taken. Open to both practitioners and undergraduates.
2. Preparatory and collegiate medical students. Courses in biology, inorganic and organic chemistry, physics and language are offered for the benefit of students who desire to attend a medical school but who still lack sufficient college credit to qualify for admission.
3. Teachers, etc. High school teachers and others who do not care for credit in medicine but who possess the required preliminary training will be admitted to the laboratory and other courses.

A four weeks' course in roentgenology will be offered to a limited number of students; fee, $100.

No course will be given unless a sufficient number of applicants have registered for it by the time the session opens. Two courses in college or laboratory subjects will constitute full work. No formal clinical courses are announced; however, special arrangements may be made for those who desire instruction in some of the clinical branches.

For further information apply to the director of the summer school.

Nebraska

University of Nebraska College of Medicine, Forty-Second and Dewey Avenue, Omaha.—A full clinical schedule will be offered, to the senior students of the University of Nebraska, which will extend throughout the entire summer and enable them to graduate in February instead of June. Dr. J. Jay Keegan, dean.

New Jersey

Physiatric Institute, Morristown.—The course, for graduate physicians, gives a practical working knowledge of the management of diabetes, obesity, anemia, cardiorenal-vascular diseases, etc., according to the methods employed in this institute. The work includes lectures and practical experience in the laboratories, diet kitchens and wards of the institute. The tuition is $150. The course begins, June 1, and ends, July 1. The same work can be taken informally in other months without lectures, at the same fee. Dr. Frederick M. Allen, director.

New York

Columbia University College of Physicians and Surgeons, 437 West Fifty-Ninth Street, New York City.—Courses in anatomy, bacteriology, cancer research, neurology and practice of medicine will be offered to medical students as well as to physicians who may pursue them. The session begins, July 11, and ends, August 19.

A six weeks' clinical course with lectures on physical therapeutics will be given to well qualified graduates in medicine from June 6 to July 16. A five weeks' course on internal medicine will be given to well qualified graduates in medicine from June 13 to July 15. Courses in public health and preventive medicine will be given if a sufficient number apply. This course is open to physicians, sanitarians, nurses, teachers, social workers and other health workers. Courses begin, July 11. Dr. William Darrach, dean.

New York Polyclinic Medical School and Hospital, 341-353 West Fiftieth Street, New York City.—Courses available during the summer term are the same as those offered during the year, open for general practitioners. Courses may begin at any time. Dr. J. A. Kearney, executive officer.

New York Post-Graduate Medical School and Hospital, Second Avenue, Twentieth and Twenty-First streets, New York City.—Courses available during the summer term are the same as those offered during the year, open for general practitioners. Dr. William D. Cutter, dean.

Trudeau School of Tuberculosis, Saranac Lake.—A course in the intensive study of tuberculosis is being offered to graduates in medicine from May 16 to June 25 (a six weeks' course). Dr. E. R. Baldwin, director.

University of Buffalo School of Medicine, 24 High Street, Buffalo.—Courses in anatomy and biochemistry will be offered to medical students and graduates. Applications for admission to the summer session should, if possible, be made on or before June 1. Dr. C. Sumner Jones, dean.

OHIO

Ohio State University College of Medicine, 710 North Park Street, Columbus.—A few of the students of the Ohio State University will be permitted to take dispensary and practical obstetrics. A course in bacteriology will also be offered to undergraduates. The summer quarter extends from June 20 to August 31. Dr. E. R. McCampbell, dean.

University of Cincinnati College of Medicine, Eden and Bethesda Avenues, Cincinnati.—Courses in biochemistry, physiology and bacteriology will be offered beginning June 20 and ending August 13. Registration, however, should be made prior to June 15. Dr. A. C. Bachmeyer, dean.

Western Reserve University School of Medicine, 2109-2115 Adelbert Road, Cleveland.—A summer course in physiology will be offered to medical students who find it necessary to repeat the course. Courses will not be given unless a certain number apply. The summer session will begin on or about June 13. Dr. Carl A. Hamann, dean.

OREGON

University of Oregon Medical School, Marquam Hill, Portland.—A number of courses in clinical subjects in the outpatient department and in anatomy will be offered to students of the University of Oregon. No courses available for students from other schools. Dr. Richard B. Dillehunt, dean.

PENNSYLVANIA

University of Pennsylvania Graduate School of Medicine, Philadelphia.—Courses for graduates, during the summer months, in various hospitals and institutions offered in conjunction with the graduate school are as follows: parasitology and tropical medicine, July and August each year; gastro-enterology, May 23 to July 2; allergy; intubation; clinical dermatology; neuro-anatomy, neurophysiology and neuropathology; neuro-otology; clinical psychiatry; operative surgery and surgical anatomy; anesthesia; gynecology for the general practitioner, June 13 to August 6; cystoscopy; slit lamp microscopy; laryngoscopy, bronchoscopy and esophagoscopy; otologic operations; otolaryngologic operations; correction of defects of speech; clinical biochemistry. Dr. George H. Meeker, dean.

TEXAS

Baylor University College of Medicine, 720 College Avenue, Dallas.—If the demand justifies, complete courses in bacteriology, biochemistry, histology, embryology, neuroanatomy and pharmacology will be offered from June 13 to August 1. These courses will be the equivalent of those given during the regular session.

In addition, a series of clinics for practitioners will be given from May 30 to June 12. Dr. W. H. Moursund, dean.

University of Texas School of Medicine, Avenue B, between Ninth and Tenth streets, Galveston.—A short course of lectures and clinics for practitioners will be held from May 23 to June 4, inclusive. Dr. Henry Hartman, acting dean.

VIRGINIA

University of Virginia Department of Medicine, Charlottesville.—Courses in the medical sciences are being offered during the summer for medical students who are deficient in these subjects and desire to make a review: group A, histology and embryology; group B, anatomy, topographic anatomy and anatomy of the human nervous system; group C, biochemistry; group D, pharmacology. No courses will be given in any group if less than six students apply. Dr. Harvey Ernest Jordan, professor of histology and embryology.

WEST VIRGINIA

West Virginia University School of Medicine, Morgantown.—Courses offered to undergraduate students in (gross) anatomy, including neurology, histology, medical bacteriology, biochemistry and embryology. The summer session is divided into two terms of six weeks each. The first term begins, June 10, and ends, July 21. The second term begins July 22, and ends, August 31. Dr. John N. Simpson, dean.

WISCONSIN

University of Wisconsin Medical School, Madison.—Courses offered to undergraduate students in anatomy, bacteriology, hygiene, medicine, pharmacology, physiologic chemistry, physiology and surgery. Summer session begins, June 27, and ends, August 5. Dr. Charles R. Bardeen, dean.

Illinois January Examination

Mr. V. C. Michels, superintendent of registration of the Illinois Department of Registration and Education, reports the written and practical examination held at Chicago, Jan. 11-13, 1927. The examination covered 10 subjects and included 100 questions. An average of 75 per cent was required to pass. Of the 62 candidates examined, 52 passed and 10 failed. Seventeen candidates were licensed by reciprocity, and one by endorsement of his credentials. The following colleges were represented:

College PASSED	Year Grad.	Per Cent
George Washington University Medical School	(1924)	84
Emory University School of Medicine	(1925)	87
Chicago Medical School (1925) 76, (1926) 82	(1927	84
Loyola University School of Medicine (1926) 80, 81, 82, 82, 90	(1916)	76
Northwestern University Medical School (1926) 78, 79, 80, 83, 84, 85 (1927) 86	(1925)	76
Rush Medical College..(1926) 79, 79, 80, 81, 82, 82, 83, 83, 83, 84, 84, 85, 87, 87		
University of Illinois College of Medicine (1927) 85, 87, 88	(1926)	81, 83
St. Louis University School of Medicine....(1921) 83	(1925	80
Starling Medical College, Columbus	(1903)	79
University of Oklahoma School of Medicine	(1925)	77
Meharry Medical College....(1892) 78	(1924)	77
University of Virginia Department of Medicine	(1922)	82
University of Toronto Faculty of Medicine..(1921) 87	(1924)	75
University of Western Ontario Medical School	(1924)	78
University of Leipzig, Germany	(1914)	77
University of Munich, Germany	(1924)	81
National University of Athens, Greece	(1908)*	76
University of Edinburgh, Scotland	(1914)	79

College FAILED	Year Grad.	Per Cent
Chicago College of Medicine and Surgery	(1916)	70
Chicago Medical School	(1926)	72
Northwestern University Medical School	(1913)	67
National University of Arts and Sciences, Med. Dept.	(1916)	64
Meharry Medical College ....(1914)†	(1919)	35
University of Greifswald, Germany	(1921)	67
University of Leipzig, Germany	(1922)	73
National University of Athens, Greece	(1922)*	72
University of Naples, Italy	(1920)*	71

College LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
General Medical College, Chicago	(1924)	Wisconsin
University of Illinois College of Medicine	(1919)	Minnesota
Kansas Medical College, Topeka	(1897)	Texas
Tulane University of Louisiana School of Med	(1924)	Louisiana
Tufts College Medical School	(1925)	Maine
University of Minnesota Medical School	(1922)	California
University of Nebraska College of Medicine	(1925, 2)	Nebraska
University of Buffalo Department of Medicine	(1925)	Maryland
Cornell University Medical College	(1920)	Iowa
University of Oklahoma School of Medicine	(1924)	Kansas
Jefferson Med. College of Philadelphia (1923) Penna).	(1924)	W. Virginia
University of Pennsylvania School of Medicine	(1897)	Penna.

University of Pittsburgh School of Medicine	(1922)	Penna.
National University of Athens, Greece	(1910)*	Penna.
University of Petrograd, Russia	(1913)	California

ENDORSEMENT OF CREDENTIALS

College	Year Grad.	Endorsement with
Harvard University	(1922)	N.B.M.Ex.

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* Verification of graduation in process.
† No grade given.

Book Notices

Master Minds in Medicine. An Analysis of Human Genius as the Instrument in the Evolution of Great Constructive Ideas in the History of Medicine, together with a System of Historic Methodology. By John C. Hemmeter, M.D. With an Introduction by Karl Sudhoff, M.D. Cloth. Price, $10. Pp. 771. New York: Medical Life Press, 1927.

This massive volume, dedicated to Charles and William Mayo, consists of thirty-one essays on varied themes, related, in some way, to the centric idea conveyed in the title. It represents a lifetime of serious study and research in the history of medicine. The initial chapters stress a new line of thought, namely, the lack of training in "methodology," which has rendered so much of recent historical writing scrappy, irrelevant and irresponsible. The inspiration of these chapters is to be sought in such books as Ostwald's "Great Men" and the brilliant output of the Leipzig school, particularly Sudhoff's view that, to date, medical history has been "a casual science, without any well planned elaboration or method." In a highly philosophical examination of this matter, Hemmeter differentiates clearly at the start between history (the evolutionary process) and historiography (the mere record), the lines of approach (method) being narrative (frequently fictional), pragmatic or factual, and genetic or developmental (interpretative). The chapters that follow deal with sources of medical history and the virtual lawlessness of secular historic processes, dependent, as they are, on human caprice and "the unstable heart of man," by contrast with the dynamic effect of ideas on the evolution of medicine, and the rôle of great physicians in these developments. Some attention to these basic principles, the very thorough-bass of the subject, is to be recommended in the general teaching of medical history, which will be in motion before long in our universities and medical schools. The whole matter is summed up in Goethe's dictum, "The history of a science is the science itself." In other words, at the ideal mathematical limit, the historic process and its record should tally point for point. Thus, if we could really grasp the ideas that activated the minds of Galen or Sydenham or Broussais or even of Hahnemann at the bedside, we should not only be able to visualize their line of procedure in practice, but we should begin to understand why they were accounted "great" physicians in their day, getting results by what might seem, at first sight, a faulty method. Or, if we consider curiously a bottle of medicine, a surgical instrument or a factual statement in Osler or Keen, we perceive at once a long vista of unexplored territory, brought suddenly to our notice by the question: Just how and why did these remedies or principles come to be established or accepted today? This genetic mode of inquiry into origins, of which we have excellent examples in Huxley's lecture on "A Piece of Chalk," or Osler's Dover's powder study or Meyer Steineg's "Day in the Life of Galen," is the essence of historical investigation, the sign that the subject is alive, healthy and subject to growing pains. It was Osler's way of teaching ("Blaud's pills." "Who was Blaud?") and is open and available to any student.

After some timely consideration of the future of present-day medicine, Hemmeter analyzes the work of Billroth, the Italian precursors of Harvey, Virchow, Haller, the U. S. Army Yellow Fever Commission, H. P. Carter, C. A. Herter, Servetus, Lavoisier, Pasteur, Leonardo, J. J. Woodward, Beaumont, Goethe and Darwin, with reference to the germinal effect of ideas on the advancement of medicine. The arrangement of these chapters (as above) is somewhat haphazard as chronology goes, and interspersed among them are a number of histories of diagnostic procedures which would have gained in perspicuity by segregation elsewhere. The chapter on Billroth contains a full length analysis of his pamphlet on the musical temperament (*Wer ist musikalisch?*), which reveals incidentally the accomplished musician in the author himself. The Leonardo papers include an effective refutation of the calumnies in the freudian pamphlet. But the chapter on the U. S. Army Yellow Fever Commission is virtually a eulogy of Carroll and contains very little as to the scientific demonstration of the transmission of yellow fever by *Aedes* and its nontransmissibility by fomites, which experiments were accomplished after Reed's return to Havana, Oct. 1, 1900. Carroll and Lazear, along with Dean, Kissinger, Moran and the rest of the twenty-four Americans and six Cubans, were no doubt the heroes and martyrs of the enterprise in its incipient, tentative stage. The guiding spirit of the scientific proof was Reed, who alone of the commission grasped the significance of the opening skirmishes in Pinar del Rio, "when fomites failed to infect" and the probable rôle of the particular mosquito which Carlos Finlay had shown him. The only persons who attached any importance to the mosquito theory at the time were Reed and Carlos Finlay himself. The book concludes with two chapters on the psychography of investigators and the relation of heredity and eugenics to genius. There are a number of misprints, and the text would have gained in interest by casting bibliographic references into the footnotes. The portraits, of which there are twenty-eight, are handsomely executed.

The thoughtful introduction by Professor Sudhoff stresses a fact of considerable importance to the future of medicine, viz., that mass action, collectivism, crowd psychology, herd instincts and mob rule have always been very dangerous enemies of medicine in the past. We like to think that vaccination, digitalis, cinchona came from the heart of the people: but they were really the gift, not of the crowd, but of capable individuals. If we look closely into these folk discoveries themselves, we find that they are not really discoveries in internal (bedside) medicine at all but, every one of them, contributions to preventive medicine. It is here, in fact, that the people are destined to play an all important rôle, for without intelligent cooperation of the community or the mass of mankind, public health becomes null and void. This introduction of Sudhoff's seems appropriate for a volume which, whatever its defects of arrangement, is characterized throughout by a steady continuity of serious thought.

Lehrbuch der Geburtshilfe. Von Prof. Dr. Wilhelm Zangemeister, Direktor der Universitäts-Frauenklinik in Königsberg i. Pr. Paper. Price, 40 marks. Pp. 834, with 348 illustrations. Leipsic: S. Hirzel, 1927.

This book, by one of the foremost German teachers, was written for the general practitioner and hence contains little material that is not of practical use. For example, the technic of cesarean section is given briefly and there is only one small illustration of the operation. The author employs the transperitoneal cervical cesarean section almost exclusively. He favors cesarean section for the treatment of placenta praevia but he does not recommend this procedure to the general practitioner. There is a large section on the toxemias of pregnancy, but this is to be expected because the author has been interested in the subject for many years. He advocates emptying the uterus as soon as possible in cases of eclampsia and also in cases of preeclampsia in which there is no improvement under dietetic, medicinal and other forms of treatment. In the chapter on the urinary tract and in the discussion on cesarean section, the author says that the bladder is injured in 6 per cent of the cases of cervical cesarean section. This may hold true for the extraperitoneal type but certainly does not hold good for the transperitoneal cervical operation. In a series of approximately six hundred transperitoneal cervical cesarean sections performed in one hospital in the Middle West, the bladder was injured only twice (0.3 per cent). The last sixty pages of the book are devoted to diseases of the new-born, and this is an especially commendable section. The book is printed on heavy paper because distributed throughout the text are numerous illustrations, a large number of which are colored. The drawings and photographs are unusually beautiful, clear and instructive. Many, however, were borrowed from other books. A number of illustrations might have been omitted because they depict rather dangerous procedures for the general practitioner. For example, there is a full-page illustration showing the use of the Bossi metal dilator, which instrument, the author admits, is prone to tear the cervix and causes a maternal death rate of 1 per cent from the hemorrhage that follows cervical laceration Harm may also be done by the metal hook shown for the delivery of the breech; and an illustration of an incorrect method of delivering the decapitated after-coming head might also have been omitted. The four illustrations showing "collision" of twins are unnecessary since such a condition, as the author himself points out, occurs only once in ninety thousand twin deliveries The book is written in a clear, simple style and there is a personal note throughout. It will undoubtedly take its place with the leading German textbooks on obstetrics.

Pharmaceutical and Medical Chemistry. By Samuel P. Sadtler, Ph D , LL D , Virgil Coblentz, Ph D , F C.S , and Jeannot Hostmann, Ph G Sixth edition Revised and rewritten by Freeman P. Stroup, Ph M , Professor of General Chemistry, Philadelphia College of Pharmacy and Science Cloth Price, $7. Pp. 748. Philadelphia. J. B. Lippincott Company, 1927.

This textbook is primarily written for students in colleges of pharmacy and contains the pharmaceutic and organic chemistry, both theoretical and practical, to meet the requirements of the average state board of pharmacy examination. The book is divided into three parts, the chemistry of the nonmetals, of metals, and of organic compounds; included also are an appendix and a comprehensive index. The first part contains an introductory chapter on the fundamental theoretical principles of chemistry and a description of the nonmetallic elements, including their compounds which are recognized by the United States Pharmacopeia X and the National Formulary V The second part includes the metals, relating their occurrence in nature, isolation and properties, and describing the more important compounds, including those of the Pharmacopeia X and the National Formulary. The third part comprises the organic classification, describing methods of detection, ultimate analysis of the elements and a concise general survey of the subject. Organic compounds of the Pharmacopeia, the National Formulary and New and Nonofficial Remedies (1926) are also discussed. The appendix contains a brief discussion of electrolysis and its applications and the usual information about strengths of acids and alkalis. The printing is good and free from typographic errors The text is to be recommended in that the author has refrained from describing in detail the therapeutic uses of the compounds in such a book intended primarily for pharmacists, other textbooks generally pass on to the pharmaceutic student a mass of uncritical therapeutic recommendations

Diseases of the Teeth. Their Diagnosis and Treatment By John Albert Marshall, D D S , Ph D , Professor of Dental Pathology and Biochemistry, University of California Cloth Price, $4 50 Pp. 331, with 114 illustrations. Philadelphia: Lea & Febiger, 1926.

The text is divided into three parts; part one discusses the diseases of the dental tissues, and part two those of the oral mucous membrane Part three is quite brief and contains outlines and directions for student use in the laboratory. As suggested in the title, the author covers both the diagnosis and the treatment of these diseases. In addition, there is considerable material on both etiology and pathology, and this last statement is especially true of the chapters on caries and pulp canal therapy. On the whole, the discussion of the various diseases is conventional, the only exceptions concerning matters in which the author has been actively interested, as, for example, the relationship of salivary composition to the incidence of caries. Even in such instances, the views of others are carefully presented. Each chapter is followed by an extensive bibliography, which, however, is not directly connected with the subject matter by either footnotes or reference numbers. A brief discussion of the subjects of cysts, thrush, tuberculosis, syphilis and noma is contained in the last chapter of part two. The author's style is not always clear, and some of his statements on this account are difficult to grasp. The illustrations are adequate, although not all of them are well chosen.

Books Received

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender Selections will be made for more extensive review in the interests of our readers and as space permits. Books listed in this department are not available for lending. Any information concerning them will be supplied on request.

Index and Handbook of X-Ray Therapy. By Dr. Robert Lenk, Privat Dozent of Medical Roentgenology, University of Vienna. With a foreword by Professor Holzknecht. Translated by T. I. Candy, M B, B Ch , D M R.E , Hon. Radiologist, Royal Gwent Hospital, Newport, Mon. Cloth. Price, $2 25. Pp. 121. New York: Oxford University Press, 1926.

Outline of roentgen-ray technic with emphasis on Holzknecht measurements.

Elements of Hygiene and Public Health. An Introduction to Preventive Medicine for Students and Practitioners of Medicine. By Charles Porter, M.D , B.Sc., M R C P., Medical Officer of Health, Metropolitan Borough of St. Marylebone. Second edition. Cloth. Price, $4 50. Pp. 425, with 98 illustrations. New York: Oxford University Press, 1926.

Outline of public health practice with special reference to British conditions.

Die Klinik der bösartigen Geschwulste. Herausgegeben von Geh. Rat Prof. Dr. P. Zweifel, und Geh. Med.-Rat Prof. Dr. E. Payr, Direktor der chirurgischen Universitätsklinik zu Leipzig. III Band. Brust- und Bauchorgane, Harn- und weiblicher Geschlechtsapparat, Strahlen- und Vakzinebehandlung. Paper. Price, 76 marks. Pp. 650, with 228 illustrations Leipsic: S. Hirzel, 1927.

Third volume of important German system of knowledge of tumors.

Principles of Physical Chemistry for Medical Students. By Phyllis M Tookey Kerridge, M.Sc., A I.C , Assistant in the Department of Physiology and Biochemistry, University College, London. With introduction by Prof. A. V. Hill, M.A., F.R S. Cloth. Price, $1.75 Pp. 134, with 22 illustrations. New York: Oxford University Press, 1927.

Beautifully written but highly technical guide to knowledge of the p_H, osmosis, and similar subjects.

Nouveau traité de médecine. Par G. H. Roger, Fernand Widal, et P J Teissier. Fascicule IX. Affections du sang et des organes hematopoietiques Par Ch. Aubertin, M. Mouquin, A. Clerc, et autres. Boards Price, 80 francs. Pp. 796, with 192 illustrations. Paris: Masson & Cie, 1927.

Volume of French system of medicine, this one dealing with blood and blood-forming organs.

Applied Physiology. By Samson Wright, M.D , M.R.C P., Department of Physiology, Middlesex Hospital Medical School. With introduction by Swale Vincent, M.D , LL D., D Sc., Professor of Physiology, University of London. Cloth. Price, $4.50. Pp. 418, with 37 illustrations. New York. Oxford University Press, 1926.

The practical applications of physiologic knowledge to the care of disease.

Diseases of the Heart: Their Diagnosis, Prognosis, and Treatment by Modern Methods By Frederick W. Price, M.D., F.R S , Physician to the National Hospital for Diseases of the Heart. Second edition Cloth Price, $6.20 Pp. 534, with 249 illustrations. New York: Oxford University Press, 1927.

New edition of well established monograph on the care of the heart.

Child Liff Investigations, Social Conditions and Acute Rheumatism. Medical Research Council. Special Report Series, No. 114. Paper Price, 2s, 6d net. Pp. 108. London: His Majesty's Stationery Office, 1927.

Special research proving that exposure to bad environment as well as contagion may be concerned in causes of rheumatism.

Heliotherapy with Special Consideration of Surgical Tuberculosis By A. Rollier, M.D. Translated by G. de Swietochowski, M D, M R C S. Second edition Cloth Price, $6 25. Pp. 218, with 273 illustrations New York: Oxford University Press, 1927.

New edition of the most important pioneer work in the treatment of tuberculosis by the ultraviolet of the sun.

Compression of the Lung in the Treatment of Pulmonary Lesions By Stuart Tidey, M.D , M R.C.P., Diplomate in Medicine of the Swiss Federation and of the Province of British Columbia Paper. Price, 3/6 net. Pp. 86. New York: Oxford University Press, 1927.

The development of the ideas of external compression and of artificial pneumothorax traced by a pioneer.

The Enlarged Prostate. By Kenneth M. Walker, F R C S, M A, M B, Lecturer in Venereal Diseases, St. Bartholomew's Hospital. Cloth. Price, $4. Pp 193, with 60 illustrations. New York: Oxford University Press, 1926

British monograph with emphasis on practical care of the patient with prostatic hypertrophy.

The Modern Practice of Pediatrics. By William Palmer Lucas, M D, LL D, Professor of Pediatrics, University of California Medical School Cloth Price, $8 50 Pp. 962, with 126 illustrations. New York. Macmillan Company, 1927.

New textbook of pediatrics with emphasis on keeping the well child well.

Saving Eyesight After Mid Life. By John Herbert Waite, M D, S M, Instructor in Ophthalmology, Harvard Medical School. Cloth. Price, $1. Pp. 48, with illustrations. Cambridge: Harvard University Press, 1927.

Simple information on glaucoma, cataract and similar disturbances.

Manual of Operative Surgery. By Sir Holburt J. Waring, M S, M B, B Sc, Surgeon to and Joint Lecturer in Surgery at St Bartholomew's Hospital. Sixth edition. Cloth. Price, $5 25. Pp. 868, with 618 illustrations. New York: Oxford University Press, 1927.

Popular textbook of detail and technic in the practice of surgery.

Etudes sur les affections des os et des articulations. (Colonne vertebrale exceptee). Par Andre Leri, professeur agrege a la Faculte de medecine de Paris Paper. Price, 58 francs. Pp. 460, with 128 illustrations. Paris: Masson & Cie, 1926.

Poorly printed textbook on diseases of bones and joints.

Manual of Medicine. By A. S. Woodwark, C M.G, C B E, M D, Physician, Lecturer on Medicine and Dean of the Medical School, Westminster Hospital. Third edition. Cloth. Price, $4 75. Pp. 523. New York: Oxford University Press, 1927.

Guide to clinical practice apparently popular abroad.

The Psycho Pathology of Tuberculosis. By D. G. Macleod Munro, M D, C M, M R.C P. Cloth. Price, $1.75. Pp. 92. New York. Oxford University Press, 1926.

How tuberculosis affects the mind, with a special section on tuberculous genius.

The Treatment of Chronic Arthritis and Rheumatism. By H. Warren Crowe, D M, B Ch, M R.C S. Cloth Price, $2 75. Pp. 196, with 16 illustrations. New York: Oxford University Press, 1926.

Monograph describing empirical and scientific methods in use.

Our Own and Our Cousins' Eyes By Thomas Hall Shastid, A.M, M D, F.A.C S Cloth Price, $1. Pp. 199 Southbridge, Massachusetts. American Optical Company, 1926.

Popular lecture on evolution of the human eye.

Handbuch der experimentellen Pharmakologie. Herausgegeben von A. Heffter, und W. Heubner, Professor der Pharmakologie an der Universität Gottingen. III Band 1 Hälfte—Die osmotischen Wirkungen. Schwer resorbierbare Stoffe, usw, usw. Paper Price, 57 marks. Pp. 619, with 62 illustrations. Berlin: Julius Springer, 1927.

Report of the Health Department of the Panama Canal for the Calendar Year 1925 By W. P. Chamberlain, Colonel, Medical Corps, United States Army Chief Health Officer, and Dr. D P Curry, Assistant Chief Health Officer. Paper. Pp. 62. Mount Hope Panama Canal Press, 1926

Asilos y hospitales regionales en la Republica Argentina. Prevision y asistencia social (ley 4953). Segunda serie Periodo de Octubre 1922 al 1926. Cloth. Pp 64, with illustrations. Buenos Aires, 1926.

Les syphilis viscerales tardives. Par H. Grenet, Medecin de l'Hopital Bretonneau, R. Levent, et L. Pellissier, Interne des Hopitaux de Paris. Paper. Price, 32 francs Pp. 378 Paris. Masson & Cie, 1927.

Report of the State Tuberculosis Commission to the Governor for the Period Beginning July 1, 1924, and Ending June 30, 1926. Paper. Pp. 109, with illustrations. Hartford, 1926

Brattleboro Mutual Aid Association, Inc. A neighborhood association for mutual help in sickness Nineteenth annual report. Paper. Pp 34. Brattleboro, Vermont, 1926.

Thirteenth Biennial Report of the Montana State Board of Health for the Years 1925 1926. Paper. Pp. 46. Great Falls, Montana, 1926

Report of the Sixth Congress of the Far Eastern Association of Tropical Medicine, October 11-31, 1925 Paper. Pp. 114, Tokyo, 1926

Miscellany

MY BANDIT CLINIC

HARVEY J. HOWARD, M D.
Peking, China

As a professional class, pirates, bandits and their ilk undoubtedly deserve to be called inhuman. Individually, when off duty they are essentially human Anatomically and physiologically they differ not a whit from the rest of the human race. Furthermore, they are subject to the very same pathologic influences that sooner or later bring good men to their graves. At least so it might be said about "my bandits," who were probably of the standard variety.

After the novelty of my rather awkward situation as a captive gradually wore off, I found myself unable to look on my captors in a more personal sense than as patients This was fortunate, for it enabled me to minimize my own predicament and discomfort, by becoming absorbed in the physical and mental ills of others who, to all appearances, were more unfortunate even than I. To my surprise, the majority of those brigand companions of mine needed a physician, and some of them very badly

By the time a Chinese bandit reaches the age of manhood he undoubtedly is steeped in prejudices as deep, and is heir to superstitions as crude, as are other human beings who are either ignorant of, or blind to the science of creative evolution and all that goes with it. But my captors had no misconception about the deadly effect of modern rifles. They had seen too many of their enemies and comrades bite the dust in death agony to take unnecessary chances themselves with the tiny bits of steel or lead that come out of those rifles Their knowledge thereof was born of experience, and plenty of it

But with modern medicine the bandits had had no experience They were curious about it, just as people were a few hundred years ago when certain wise men told them that the earth was round, not flat, they did not believe the wise men, but they were tickled with the new idea, for it gave them a chance to argue in a superior way on behalf of an inherited belief which *they* knew to be absolutely true, and to feel sorry for the other fellow's breakdown in mentality

Powdered deer-horn and dragon's teeth (in reality the teeth of fossil animals that lived in China a million or more years ago) are almost as costly as gold dust, but several of the bandits had a supply of each and had great faith in the efficacy of these inert substances to heal bullet wounds and other external lesions When their supply gave out, they discussed their dilemma with a few brave comrades who had already sought my aid and had not died as a result. And so it came about finally that I counted the whole bandit gang among my clientele

When one possesses no medicines and none but the crudest surgical instruments, he can scarcely be said to be in a position to practice modern medicine But if a recent definition of modern medicine be correct, in that it is the art of making proper diagnoses, then perhaps I might qualify in a humble way as having practiced modern medicine among the Black Dragon River bandits, with whom I lived for ten weeks in northern Manchuria during the summer of 1925 But it must not be taken for granted that "my bandits" were satisfied merely with my opinion as to what was the matter with them. My task was not as easy as that

I took stock of my available armamentarium and made a mental list of the following items: (1) sunshine, but generally not more than five or six hours of it a day; (2) pure air, outside of the cramped living quarters where most of the bandits preferred to spend all their days and nights when not in flight from the soldiers; (3) plenty of good water, which could easily be boiled if necessary; (4) two cakes of perfumed soap; (5) exceedingly plain food—millet, unground corn, unrefined salt, and occasionally vegetables and fish; for drinking purposes a weak coffee made of kaoliang (a variety of sorghum seeds); (6) starvation diet, if necessary; (7) an ability to massage (learned in medical student days); (8) a little acetylsalicylic acid powder, a small bottle of iodoform powder, and a very small package of sterile cotton (all possessed by one of the bandits); (9) a crude Chinese razor, and two opium-pipe probes; (10) a considerable quantity of crude opium (each of the bandits had several ounces).

Several of the bandits had bullet wounds, two of them bone injuries followed by chronic osteomyelitis; so the small supply of iodoform powder and sterile cotton soon disappeared. I persuaded the bandit who had permitted me to use these precious supplies also to give me his acetylsalicylic acid, which I wanted for my own use. During the last two weeks of my captivity, I was fortunate to have it, for the aches and pains resulting from lying night after night on the cold ground, in a rapidly dropping temperature, were sufficiently relieved a few times by this drug to permit me to get a little sleep. The bandits often urged me to smoke their opium because of my inability to sleep, but I refused their offer with thanks. Out of curiosity I smoked once, but noticed only a very slight effect from it.

With but few exceptions all the bandits smoked opium. Some of the older men smoked as much as three or four ounces a week when they were idle. I was surprised to find them so robust and vigorous after I learned that most of them had used opium for ten years or more. I concluded that the severe physical life which they were forced to endure much of the time prevented them from becoming the emaciated and sordid human wrecks seen so often in addicts among the leisured class. One effect from opium smoking is loss of appetite, which probably explains the emaciation generally seen; but, in the case of the bandits, the forced marches and the exercise incidental to their getting something to eat every day and a place to sleep every night evidently counterbalanced the effect of their opium smoking, for there were no examples of small appetites among them, as far as I could judge.

However, after a period of idleness several of the opium smokers complained of gastro-intestinal distress. My advice that they reduce their consumption of opium met with no response; but since they expected me to give them some relief I thought it wise to devise other methods which would sound more "practical." The opium had undoubtedly produced an atonic state of the gastro-intestinal tract, so I persuaded some of the bandits to drink a great deal of hot water, to eat more food, and to exercise more—the object being to stimulate peristalsis. When carried out, this advice always brought good results. Two of them also refused to carry out these suggestions, so on them I tried abdominal massage and found that it worked exceedingly well. But within a few days my enthusiasm for giving the latter form of treatment rapidly waned, for many of the bandits shortly began to have all kinds of aches and pains which they wanted me to rub away. It was surprising how many headaches those fellows developed. Evidently they thoroughly enjoyed the treatment, which was sometimes so effective that they went sound asleep as soon as I had finished.

During the summer months the flies were a pest, but the bandits never, except when on flight, ate anything but hot food or drank anything except boiled water, so the danger from dysenteric disease was very slight. The bandits devoured their hot food too rapidly for the flies to bother them. The camp quarters were clean, but just beyond the wall of the stockade the bandits deposited their excreta in a shallow trench. This trench was never covered, so the possibility of dissemination of infection existed. Two of the bandits did develop a severe diarrhea which I was able to control in three or four days by persuading them to adopt a regimen of rest and starvation. They had at first allowed their own medicine-men to prick holes in their skin with a shoemaker's needle, and to burn them over the involved region with lighted incense sticks and moxas in order to drive the evil "winds" out.

As long as Tso Shan's very meager supply of paper held out I wrote prescriptions for some of the men which I told them they could get filled at any hospital or pharmacy in Harbin—a city where some of them spent the winter months. A number of the bandits had skin diseases, such as ringworm and Hong Kong foot. The chief of the mounted bandits who captured me had a chancre on the penis; another young brigand had a gonorrheal urethritis. Judging from their daily conversation, I surmised that they had all been exposed many times to venereal infections.

The majority of the bandits were nearsighted—a condition determined by comparing their ability with mine in distinguishing distant objects. Their defect did not surprise me, since my examination of Chinese patients for more than a decade had revealed that nearly 60 per cent were myopic. None of the bandits wore spectacles (a Chinese cannot wear *pince nez*), but they took an undue interest in mine. Sometimes I had great difficulty in restraining them from keeping the spectacles, for the nose piece and temples were made of 18 carat gold. Each bandit in the gang tried them on several times—a proceeding which annoyed me almost as much as their using my towel. I feared, of course, that the spectacles might be broken, but my chief anxiety was concerning the possibility of my becoming infected with trachoma. Naturally I cleaned the spectacles thoroughly whenever I got them back.

I took the opportunity to examine all of the bandits' eyes for trachoma, and found clinical evidence of the disease in about 40 per cent. Several had corneal maculae as a result of ulcers due to trachoma. A dozen or so had pannus in varying degrees. The "old" ex-chief, Jih Pen Tzu, the one who befriended me and with whom I shared a tiny mosquito tent for fifty-eight nights, had trachoma the worst of all. He developed two acute attacks of superficial keratitis with multiple ulcers while I was with him. With hot compresses alone, applied almost continuously for two or three days, I was able to bring him out of each attack comfortable and happy, and with his vision better than it had been for months. Undoubtedly it was my success in treating Jih Pen Tzu's eyes which gave him and the other bandits an increasing confidence in me as the long days and the still longer nights passed by.

It is not an exaggeration to state that this confidence gradually developed into a sort of friendship between Jih Pen Tzu and me—a friendship which exists to this day, for to Jih Pen Tzu I must give the credit for saving my life. As evidence of his attitude, I might add that he has sent me my ring which had been taken from me by another bandit. Furthermore, during the past year we have carried on a considerable correspondence in the Chinese language. Only last week he sent me his photograph with a request that I send him mine and also one of my family.

According to his last letter, he will come to Peking to see me as soon as traffic is resumed on the Sungari, which is icebound during the winter months. He is coming, he says, to get me to "cure his trachoma," and after that he hopes that I will get him "a suitable job in Peking." Each of these objects obviously offers certain difficulties, but the latter certainly more than the first. At any rate Jih Pen Tzu evidently trusts me not to deliver him over to the military authorities, and in that assurance he is safe.

Human Nature and Interest.—What human nature . . . demands in civilization, if it is to stand as high and satisfying civilization, is best described by the word interesting. Here is the extraordinary charm of the old Greek civilization: that it is so interesting.—Arnold: Civilization in the United States, p. 170.

Medicolegal

Retroactive Barring of Actions for Malpractice

(Kozisek v. Brigham (Minn.), 210 N. W. R. 622)

The Supreme Court of Minnesota says that in this action to recover damages for the alleged malpractice of a surgeon the cause of action, if any, accrued before the passage of chapter 113 of the general laws of Minnesota of 1925, which amend section 9193 of the general statutes of 1923. The latter provided that "The following actions shall be commenced within two years: 1. For libel, slander, assault, battery, false imprisonment, or other tort, resulting in personal injury," while the former—chapter 113—added, "and all actions against physicians, surgeons, dentists, hospitals, sanitariums, for malpractice, error, mistake, or failure to cure, whether based on contract or tort." Section 2 provided, "This act shall take effect and be in force three months from and after its passage and approval." If this law applies to causes of action accrued before its enactment but not then barred by the six-year limitation of section 9191 of the general statutes of 1923, which formerly applied to actions such as this, the defendant's demurrer to the complaint in this case should have been sustained, as this action was not commenced until after the three months' suspensory period. No other reason appearing for the suspension for three months of the effect of a statute reducing the limitation on certain actions from six to two years, this court holds it to be clear that the legislature intended to make the act applicable to causes of action existing at the time, and that the delay was for the very purpose of permitting actions to be brought thereon before the statute became effective. It is for the legislature to fix such limitations, and if a reasonable time is allowed for the commencement of actions on existing causes of action, such a statute cannot be invalidated as unconstitutional. This court cannot say that the three months allowed in this case was unreasonable. Therefore the order of the trial judge in overruling the defendant's demurrer to the complaint in this case is reversed.

State Hospital Not Liable for Its Disposal of Body

(University of Louisville et al. v. Metcalfe (Ky.), 287 S. W. R. 945)

The Court of Appeals of Kentucky says that section 2645 of the statutes of that state make it the duty of any person having in his possession the dead body of any person which may be unclaimed to notify the relatives or friends of the deceased, if they are known, and on their failure within three days to claim and bury the body, it shall be the duty of the person having possession of the body, on the demand of a professor of a medical college or school, to deliver the body to the professor, who shall have it embalmed and preserved for thirty days before dissecting it. Plaintiff Metcalfe's husband died while an inmate of the Western State Hospital. Relying on the fact that the hospital authorities did not hold the body for three days, and on the further fact that the authorities of the University of Louisville, to which the body was shipped, dissected one of the hands before the expiration of thirty days, this action was brought against the hospital, its superintendent and the university, to recover damages. There were three trials of the action. The first trial resulted in a verdict against each defendant for $18,000, which was set aside. On the second trial there was a verdict for $12,000, which was also set aside. On the last trial the jury found in favor of the superintendent, but awarded $5,000 damages against the hospital, and a like sum against the university; but the judgments against the hospital and the university are reversed, and the cause remanded with directions to dismiss the plaintiff's petition.

With regard to the state hospital, the court deems it sufficient to say that an asylum, or as it is now called a hospital, created and maintained at the expense of the state for the care of the insane, is a mere instrumentality of the state government brought into being to aid in the performance of a governmental duty, and is not therefore liable in damages for either the negligent or malicious acts of its officers, agents or employees. The only exception to this rule is where the institution commits a nuisance and thereby injures the property of another or otherwise takes and injures the property of another without making just compensation therefor, as required by section 242 of the state constitution. But this case did not fall within the exception, for whatever may be the nature and extent of one's property right in a corpse, it is not the kind of property that may be condemned, and is not therefore protected by section 242 of the constitution.

Nor was there any merit in the contention that the hospital authorities were not performing a governmental duty in sending the corpse to the university, because they were not then engaged in the care of the insane, but were acting under a statute regulating the disposition of unclaimed bodies. The disposition of the bodies of the insane is as much a governmental function as their care and maintenance during their lives, and when the superintendent of a hospital acts under the statute he simply performs a duty imposed on him as the agent of the hospital, and the hospital in acting through him acts as an arm of the government and not in a private capacity. It followed that the hospital's demurrer to the plaintiff's petition should have been sustained and the petition dismissed.

The University of Louisville challenged the jurisdiction of the court on the ground that it was a nonresident of the county where the action was brought, and had been summoned out of the county. Although the hospital was improperly joined, and its demurrer to the petition should have been sustained, yet, as a cause of action was stated against its superintendent, one of the local defendants, this was sufficient to give the court jurisdiction until judgment was rendered in his favor. When this occurred the court lost jurisdiction of the nonresident (speaking of the county) defendant, University of Louisville, and should have sustained its motion for a judgment notwithstanding the verdict, and have ordered the petition dismissed.

Authority of Foreman to Send Employee for Treatment

(Bock v. P. J. Keogan, Inc. (N. Y.), 218 N. Y. Supp. 83)

The Supreme Court of New York, appellate term, first department, in affirming a judgment for the plaintiff, says that the evidence of a workman injured in the employ of the defendant tended to show that a few days after his injury he was directed by the defendant's foreman to go to a hospital for treatment. He was there treated by the plaintiff, who afterward rendered to the defendant a bill for services, and subsequently brought this action to recover for the services. The defendant contended that a judgment for the plaintiff could not be sustained, in the absence of proof of a contractual relation between the defendant and the plaintiff; that the foreman was without authority to obligate the defendant for the services rendered under the disclosed circumstances. If the court were dealing with a question of pure agency, no doubt the defendant would be right in its position. But the rights of the plaintiff did not depend on mere agency. His rights were based on a statute—the workmen's compensation law of the state, section 13 of which provides that the employer shall promptly provide for an injured employee such medical, surgical or other attendance or treatment as the nature of the injury may require, during sixty days after the injury. If the employer fails to provide this, after request by the injured employee, the latter may do so at the expense of the employer. But the employee shall not be entitled to recover any amount expended by him for such treatment or services "unless the nature of the injury required such treatment and services and the employer or his superintendent or foreman having knowledge of such injury shall have neglected to provide the same."

It has been held by this court that under this section an employer who furnishes the medical services required by the statute is liable to the physician who performs the services in an action at common law, and that the physician's charges are not in such case a part of the employee's compensation allowable under the statute. While recognizing these decisions, the defendant contended that they were not controlling, for the reason that in those cases the contract between the physician and the employer seemed to have been admitted. Here it was urged such contract was denied because of lack of authority in the defendant's foreman. But this court is unable to agree with the contention that the defendant was not bound by the foreman's act. Under the section involved, the court is of the opinion that a superintendent or a foreman has implied power to act on behalf of his employer in directing the injured employee to go to a particular hospital or physician for treatment.

There is strong reason for this interpretation. Injuries to workmen happen suddenly, and frequently in the absence of the individual employer or duly authorized officers of a corporate employer. In many instances, therefore, it would not be practical, if, indeed, possible, for foremen or superintendent to secure promptly express authorization to provide medical or surgical treatment. This might, and probably would in many instances, result in grave injustice, not only to the injured employee but also to the employer. Because of the resulting delay which in many instances might be regarded as tantamount to a refusal to furnish services, the employer might be deprived of the right so to do. Moreover, it is to be observed that, when the injuries are of a nature requiring treatment, a foreman who has knowledge may secure medical treatment. If he fails so to do, the employee may then act. It seems to follow of necessity that the statute gives to the superintendent or foreman having knowledge of the nature of the injury the right in the first instance to procure the treatment or services.

In the instant case it was after a report, made by the employee to his foreman, that the services of the plaintiff t the direction of the foreman were employed. The foreman vas the agent of the defendant for such purpose, and the employer, therefore, should respond for the value of such ervices. It follows that the judgment for the plaintiff should e affirmed, with $25 costs.

Strangulation of Existing Hernia Compensable Injury

(Krenz v. Ferguson Coal Co. (Ind.), 154 N. E. R. 35)

The Appellate Court of Indiana, in reversing an award of the industrial board that the claimant take nothing under the workmen's compensation law, says that from all the evidence it was apparent that the industrial board was justified in finding that his hernia did not result from an accident on Dec. 21, 1925; but from uncontradicted evidence it was clear that there was a strangulation of the hernia on that day, resulting from the handling of a big chunk of coal. A strangulation resulting from an accident that was so serious as to require a surgical operation to reduce it was certainly such an injury as should come within the scope of compensation law.

Myelogenous Leukemia and Accident Causing Death

(Standard Acc. Ins. Co. v. Hoehn (Ala.), 110 So. R. 7)

The Supreme Court of Alabama, in affirming a judgment in favor of plaintiff Hoehn on a policy of accident insurance, says that the insured met with an accident, May 20, 1924, in which his heel was broken and he was perhaps otherwise injured, although there was no external or visible sign of it. The great weight of the evidence went to show that the predisposing cause of his death on July 1, 1924, was myelogenous leukemia, from which he had suffered for some time before the accident, not, however, to a degree that disabled him from performing his active duties as a locomotive engineer; but it appeared with equal certainty that the injury or injuries he suffered on the occasion of the accident hastened his death and in that sense and meaning were a contributory cause. The defense was that the insured died of disease and hence that the contingency of his death was not covered by the policy in suit, which insured him "against loss resulting from bodily injuries effected directly, exclusively and independently of all other causes through external, violent and accidental means." Moreover, this policy provided that "This insurance shall not cover accident, injury, loss of limb or sight, or disability which shall result wholly or partly, directly or indirectly from war or riot, from bodily or mental infirmity, or from disease in any form." But the policy appeared to discriminate between disability and death, and it might reasonably be said that the last-quoted provision dealt with cases of disability and not death. In the judgment of this court the policy required that the accident should be the efficient cause of the loss suffered, whether as disability or death; that is, the cause acting as the immediate agency in the production of the loss. The provisions of the policy with respect to the point under consideration being dubiously framed, the interpretation should be in favor of the insured, rather than otherwise; and the question of liability was one for jury decision.

Obstetrician Not Wearing Sterilized Gown and Gloves

(Hammer v. Klegger (S. D.), 210 N. W. R. 667)

The Supreme Court of South Dakota says that two separate actions, brought by husband and wife against the defendant physician who attended the wife at childbirth, were tried together and resulted in verdicts for the plaintiffs, but the defendant moved for judgment in both cases, notwithstanding the verdicts, and, his motions being granted, judgments were entered thereon in his favor, which are here affirmed. He made only one visit to the woman, when he delivered the child, and the mother and child were placed in charge of a woman who was there for the purpose of caring for them Three or four days later the mother had a chill followed by fever, and as the defendant could not be reached just then another physician was called, who found the patient suffering from septicemia and had her removed to a hospital. The infection was located in the uterus.

It was contended by the plaintiffs that the defendant was negligent in not wearing a sterilized gown and sterilized rubber gloves while he was examining the patient and delivering the child, and that because of this failure he might have introduced the germs that caused the infection. However, the undisputed evidence showed that, before the defendant examined the patient or performed any other duty in connection with her confinement, he put on a sterilized rubber apron, that he washed his hands thoroughly with soap and water, and then dipped them in compound solution of cresol. The defendant testified that this was a sufficient precaution to prevent the introduction of disease germs, and that it was the common practice among the practitioners in that vicinity. In this he was corroborated by other reputable physicians practicing in the vicinity. The supreme court is of the opinion that the trial court was warranted in holding with the defendant in this charge.

Another contention of the plaintiffs was that, after the patient was removed to the hospital, the physician who attended her there found a piece of placenta, about the size of an egg, in the uterus; that this was decomposed and might have been the cause of the infection; that it was the duty of the defendant to make a sufficient examination of the placenta, when it was removed, to ascertain that a portion of it still remained in the uterus, and to remove it; that in failing to take this precaution the defendant was guilty of actionable negligence. But on the charge that the infection might have been caused by leaving a fragment of the placenta in the uterus, the evidence was unsatisfactory. The physician who had charge of the patient during her sickness necessarily became the principal witness for the plaintiffs. He did not testify, however, that he believed the patient's infection was caused by the alleged negligent conduct of the defendant. He merely said that it might have resulted from his conduct. It was shown that the patient had pyorrhea, and the witness admitted that this might have caused the infection. It was shown that she had had influenza some two years prior to her confinement and that influenza frequently leaves the patient with a weakened and impaired heart. It was also shown that the patient was in a somewhat run-down or weakened condition at the time of her confinement and that her infection might have been caused by the latent germs in the genital tract. Moreover, the physician testified that if that was placental tissue left in the uterus he could not say positively that it was the cause of the septicemia; that the infection might possibly have been caused by forty other things. This was as near to a certainty as the evidence came to connecting the patient's sickness with any conduct of the defendant. There was no degree of certainty whatever that any negligence or alleged negligence of the defendant caused her sickness. It was not shown by any satisfactory evidence that the conduct complained of constituted negligence, or that such conduct caused the injury, if it was negligent, and the trial court was fully warranted in setting aside the verdicts and entering judgments for the defendant.

Society Proceedings

COMING MEETINGS

American Association for the Study of the Feebleminded, Cincinnati, June 4-6. Dr. H. W. Potter, Thiells, New York, Secretary.
American Climatological and Clinical Association, White Sulphur Springs, W. Va., May 23-27. Dr. A. K. Stone, Auburn Street, Framingham Center, Mass., Secretary.
American Gynecological Society, Hot Springs, Virginia, May 23-25. Dr. F. E. Keene, Medical Arts Building; Philadelphia, Secretary.
American Laryngological Association, Atlantic City, May 23-25. Dr. G. M. Coates, 1721 Pine Street, Philadelphia, Secretary.
American Laryngological, Rhinological and Otological Society, Atlantic City, May 26-28. Dr. R. L. Loughran, 33 East 63d Street, New York, Secretary.
American Neurological Association, Atlantic City, May 24-26. Dr. H. A. Riley, 870 Madison Avenue, New York, Secretary.
American Ophthalmological [illegible] June 27-29. Dr. Emory Hill, Professional [illegible] Secretary.
American Psychiatric Associ[illegible] Dr. E. D. Bond, 4401 Market Street, Philadelphia, Secretary.
American Psychopathological Association, Cincinnati, June 3. Dr. M. W. Peck, 520 Commonwealth Avenue, Boston, Secretary.
American Urological Association, Baltimore, May 23-25. Dr. H. G. Hamer, 723 Hume-Mansur Building, Indianapolis, Secretary.
Connecticut State Medical Society, Hartford, May 25-26. Dr. C. W. Comfort, Jr., 27 Elm Street, New Haven, Secretary.
Illinois State Medical Society, Moline, May 31-June 2. Dr. H. M. Camp, Lahl Building, Monmouth, Secretary.
Maine Medical Association, Portland, June 13-15. Dr. B. L. Bryant, 265 Hammond Street, Bangor, Secretary.
Massachusetts Medical Society, Boston, June 6-8. Dr. W. L. Burrage, 182 Walnut Street, Brookline, Secretary.
Michigan State Medical Society, Mackinac Island, June 14-17. Dr. F. C. Warnshuis, Grand Rapids National Bank Bldg., Grand Rapids, Sec'y.
Minnesota State Medical Association, Duluth, June 30-July 2. Dr. E. A. Meyerding, 11 West Summit Avenue, St. Paul, Secretary.
Montana, Medical Association of, Missoula, July 13-14. Dr. E. G. Balsam, 222 Hart-Albin Building, Billings, Secretary.
National Association for the Study of Epilepsy, Cincinnati, May 30-31. Dr. A. L. Shaw, 108B Olbiston Building, Utica, N. Y., Secretary.
National Tuberculosis Association, Indianapolis, May 23-26. Dr. G. M. Kober, 1819 Q Street, N.W., Washington, D. C., Secretary.
New Hampshire Medical Society, Portsmouth, June 22-23. Dr. D. E. Sullivan, 7 North State Street, Concord, Secretary.
New Jersey, Medical Society of, Atlantic City, June 9-11. Dr. J. B. Morrison, 66 Milford Avenue, Newark, Secretary.
North Dakota State Medical Association, Grand Forks, June 1-2. Dr. J. G. Lamont, San Haven, Acting Secretary.
Rhode Island Medical Society, Providence, June 2. Dr. J. W. Leech, 369 Broad Street, Providence, Secretary.
West Virginia State Medical Association, White Sulphur Springs, June 21-23. Mr. Joe W. Savage, 303 Professional Building, Charleston, Executive Secretary.
Wyoming State Medical Society, Cheyenne, June 27-29. Dr. Earl Whedon, Sheridan, Secretary.

TENNESSEE STATE MEDICAL ASSOCIATION

Ninety-Fourth Annual Session, held, April 12-14, 1927, at Chattanooga

(Concluded from page 1596)

Urologic Problems of Interest to the General Practitioner

Dr. George R. Livermore, Memphis: When a patient passes blood-stained urine, no one can tell from the appearance of the urine the source of the blood or the seriousness of its import. It is essential for the urologist to see the patient while the hemorrhage is present, because after it has ceased it may be impossible to locate its origin. Infections of the urinary tract are often neglected or passed over with such scant examination that irreparable harm is done before the patient comes to the urologist. Nothing is simpler to cure than an acute pyelonephritis that the urologist sees before the infection is deep-seated and before inflammatory changes have occurred in the kidney, or thickening, dilatation and kinking of the ureter have taken place. Pus in the urine should never be neglected. Contrary to the general belief, renal or ureteral colic is not always due to a stone in the kidney or the ureter. A calculus may be present in both localities without pain or other subjective symptoms referable to it. A focus is necessary for the development of kidney or ureteral infection. Stasis plays an important rôle. Many cases of infection would not occur were stasis not present. When a patient has pus in the urine, with or without symptoms of cystitis, and is having a daily rise of temperature or a chill followed by fever, the infection has involved the kidneys. Stricture of the urethra plays a prominent part in such infections. The earlier the obstruction is relieved, the less likelihood of permanent injury. Pus, blood or bacteria in the urine call for a thorough urologic examination.

Hydronephrosis

Dr. C. F. Anderson, Nashville: Hydronephrosis is probably the most frequent abnormality encountered in pyelography. Our best hope for diagnosing these cases early lies in the practitioner who keeps this condition in mind and urges urologic examination when indicated. In the early cases, conservative measures are as clearly indicated as nephrectomy in the late ones. If one can relieve a strictured or kinked ureter before permanent harm has been done to the kidney, it will resume its normal function. Replacing ptosed or movable kidney, often removing the cause, will sometimes suffice.

Early Diagnosis of Renal Tuberculosis

Dr. Russell A. Hennessey, Memphis: The true incidence of renal tuberculosis is conjectural. Autopsy reports indicate that tuberculous involvement of the kidney occurs in tuberculous subjects more frequently than is generally appreciated. The development of an insidious, progressive cystitis which does not yield promptly to the usual methods of treatment, and in which a sterile pyuria is found, demands a careful and painstaking investigation for a urinary tuberculosis. The tuberculous urine seems to possess a definite inhibitory or bacteriostatic action. It has been estimated that roentgen-ray examination is positive in from 15 to 30 per cent of all cases of renal tuberculosis. Information gained by visualization of the bladder may be of value in early renal tuberculosis, but positive information can be gained only by catheterization of the ureters and examination of the segregated kidney urines. Functional tests are most valuable guides in the surgical treatment of renal tuberculosis. The value of thorough physical examination is evident from the experience of numerous observers, who find associated tuberculous lesions in 80 per cent. The treatment of renal tuberculosis is essentially surgical, and the success of surgical treatment is largely dependent on the early recognition of this lesion.

Mercurochrome and Gentian Violet in the Treatment of Septicemia

Dr. C. N. Cowden, Nashville: The preparation of the drug for use is quite simple. Enough mercurochrome-220 soluble is added to hot distilled water to make a 1 per cent solution. It is not necessary to sterilize it, as it is sufficiently antiseptic. The solution should be made fresh each time. A large, graduated syringe is filled with the proper dose of the solution, a good sized vein selected, usually at the bend of the elbow, and through a good sized needle the solution is slowly injected. The dose is 5 mg. to a kilogram of body weight and can be given up to 7 or 8 mg. to the kilogram. This can be repeated in from three to five days. The gentian violet solution is prepared in exactly the same way, but is used in a 0.5 per cent solution and given in double quantity. The patient becomes very blue immediately after the injection, but that condition endures only a very short time.

Treatment of Septicemia with Mercurochrome

Dr. Hillard Wood, Nashville: I have used mercurochrome intravenously in three cases. Two patients had mastoid abscess with thrombosis of the lateral sinus. One patient had a blood stream infection of *Streptococcus brevis* of the viridans type, coming presumably from the middle ears. The patient recovered without operation. In each of the three cases everything that numerous consultations could suggest had been done without apparent improvement in the patients' condition. In each case permanent improvement began with the administration of mercurochrome. Two intravenous injections were given. In none of the cases was there evidence of nephritis, either before or following the administration of mercurochrome.

Ringworm of the Feet

Dr. Howard King, Nashville: There are four types. The peeling or desquamative, the dyshidrotic or vesicular, the eczematoid, and the keratotic. In all types there may be involvement of the nails. The treatment consists of the use of Whitfield's ointment, some solution of iodine and chrysarobin, from 3 to 5 per cent in traumaticin. Mercurochrome I have found of little value. Occasionally, a 5 per cent solution of thymol in alcohol acts better in conjunction with Whitfield's ointment than the iodine solution. In all cases of much rawness or secondary infection it is best to postpone the use of Whitfield's ointment or antiparasitic remedies until the infection and rawness have subsided. For acute pus infection there is nothing equal to continuous hot wet dressings of saturated boric acid solution. In all cases the roentgen ray is of great aid and is best given in one-half to three-quarter skin unit doses, every two or three weeks, along with other remedies. It is advisable to treat the previously infected parts for two or three weeks after apparent cure.

Hemolytic Jaundice

Dr. W. C. Dixon, Nashville: I have to report one case in which complete recovery followed splenectomy. The type was not determined.

Clinical Significance of the Sedimentation Test in Gynecology

Dr. W. T. Black, Memphis: The sedimentation test is a good adjunct to the temperature and blood examination. It is a more sensitive test and is of value in determining the time to operate in acute pelvic infections. The test has proved of value in my series of 150 cases. It will foretell in pelvic conditions the severity of the infection earlier than the temperature and leukocyte count. When the temperature and leukocyte count have subsided, the sedimentation test will act as a signal of danger.

Treatment of Cancer of the Uterus with Radium

Dr. E. Dunbar Newell, Chattanooga: Radium alone will cure from 50 to 75 per cent of the cases of cancer of the cervix, if radiation is given in the distinctly operable stage. In the borderline stage, radium alone, or radium plus deep roentgen ray therapy will cure from 20 to 25 per cent. In the distinctly inoperable stage, radium, plus deep roentgen-ray therapy, will cure from 10 to 20 per cent. In the apparently hopeless stage, an occasional life will be saved. In cancer of the body of the uterus, panhysterectomy is the treatment of choice, if there are no contraindications to such a major operation. If there are such contraindications, radium and deep roentgen-ray therapy should be used. The best results from the use of radium can be obtained only by the most careful study of the technic of application in each individual case, by long experience and full knowledge of the properties of this element, and the reaction of normal and neoplastic cells to its rays.

Charity and Eugenics

Dr. R. B. Wood, Knoxville: Race betterment cannot be accomplished by making the poor rich or the sick well or teaching the feebleminded and those with inferior intelligence how to exist and multiply, but by encouraging and making possible early and fruitful marriage among the mentally superior. We need improvement in the germ plasm rather than in body plasm. America is protecting her physically and mentally weak as no other nation has ever done. She is spending billions in caring for her defectives. In 1925 and 1926 Tennessee spent $2,242,738.00 for the maintenance of her penal institutions. Race improvement can be attained through only two possible courses: first, reduction of the birth rate of the less desirable element, and, second, increasing the more desirable. The aim of eugenics is to increase marriage in those physically and mentally fit, secure an adequate birth rate from these marriages, and weed out from the possibility of reproduction human stocks bearing serious defects. This can be done partially by legislation, partly by education. Laws prohibiting the marriage of those definitely insane with transmissible possibilities would aid. Sterilization of those having transmissible, undesirable mental traits would also aid.

Insanity: A Plea for Its Prevention

Dr. H. E. Goltz, Knoxville: While heredity is a strong factor in the causation of insanities and abnormal mental and nervous behavior, it does not follow that it is always a direct cause. While it is entirely possible that the psychic influence over the body is more potent than the physical influence is over the mind, such influences are marked and their removal is a long step in prevention. Psychanalysis is frequently the key to recovery in the milder forms, and therefore preventive. Persons who know of their possible hereditary tendencies to mental or nervous instabilities should be advised against worry and stress. Parents and educators should be informed as to the formative period of the life of the child, and that brain and brawn must be developed hand in hand if the future citizen is to be a stable one. Pregnant mothers should be guarded against the toxemias of that period, that they may retain their mental balance and engender their offspring with proper opportunities. Fathers should be advised against the excessive use of alcohol during their reproductive lives lest their children be neurotics, psychopaths and moral derelicts. The use of habit-forming drugs over protracted periods should be forbidden in all pregnant women for the same reason. Obstetricians should resort to instrumental deliveries only when no other recourse is possible. I advise that all pregnancies in dementia praecox and manic depressive cases be terminated early; likewise when active syphilis is present in the mother. All imbeciles, idiots and dementia praecox, manic depressive and old syphilitic patients should be sterilized.

The Physician of Yesterday, Today and Tomorrow

Dr. Marvin F. Haygood, Knoxville: Those who have preceded us in the practice and establishment of this, the great humanitarian, profession have not all been heroes or men of great piety. Nor did they to a man use to the best advantage possible all of the opportunities afforded them, or all engage in this service to the 'lame, the halt, and the blind' free of selfishness. Every age has produced its cults and every season its particular brand of quackery, but more and more they sought diligently for the truth. Our true forerunners have been the masters of the art in their day and generation. We are still traveling in the line of progress. Almost within the memory of all of us there has been more advancement in scientific medicine than during the preceding thousand years. Our professional attainments have been so markedly significant that men of great material wealth are coming to our rescue. The results are not yet satisfying but give us courage.

Fractures of the Elbow

Dr. Duncan Eve, Jr., Nashville: Fractures of the elbow occur more frequently in children than in adults. A knowledge of the roentgen ray appearances of the elbow bones at different stages of their development is important to make an accurate diagnosis. Immediate reduction should be made and active motion instituted as early as possible, avoiding movements which produce pain.

Intellectual Learning.—Learning things because of curiosity without reference to the use of that knowledge is really one of the largest normal activities of man. Knowledge-getting because of curiosity is analogous to food-getting because of hunger. One wants the food when hungry whether he knows anything about its functional value or not. The hunger is nature's way of ascribing value to things that the man needs. Equally, the healthy mind wants to know the things that appeal to the mental appetite without care at the time as to their practical application. This knowledge-hunger is nature's method of ascribing value to things that the man needs—when he is too immature or too stupid to know what he needs. Such strong and continuing instincts impel only to things that are on the whole useful and necessary.—Bobbitt: The Curriculum, p. 10.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to The Journal in America for a period of three days. No foreign journals are available prior to 1921, nor domestic prior to 1923. Periodicals published by the American Medical Association are not available for lending, but may be supplied on order. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

Titles marked with an asterisk (*) are abstracted below.

American J. Roentgenol. & Rad. Therapy, New York

17: 201-304 (Feb.) 1927

Bone Diseases in Infancy and Childhood. E. L. Jenkinson and P. Lewin, Chicago.—p. 201.

Review of Four Hundred and Fifty Roentgen-Ray Examinations of Shoulder. J. M. King, Jr., and G. W. Holmes, Boston.—p. 214.

*Generalized Carcinomatous Metastasis of Bones. M. A. Walker, Dillon, Mont.—p. 219.

*Hunger Pain. C. L. Martin and F. T. Rogers, Dallas, Texas.—p. 222.

Distribution of Radiation About Target of Roentgen-Ray Tube. J. L. Weatherwax and H. M. Sharp, Philadelphia.—p. 227.

Roentgen-Ray Doses Required to Produce Clinical Erythema. E. T. Leddy, Rochester, Minn.—p. 230.

*Rationale of Radiotherapy in Hodgkin's Disease and Lymphosarcoma. A. U. Desjardins, Rochester, Minn.—p. 232.

*Radium and Hemorrhage. J. O. Bower and J. H. Clark, Philadelphia. —p. 247.

*Roentgen-Ray Anatomic Study of Colon of Pulmonary Tuberculosis Patients. B. Halpert, Baltimore, and H. L. Sampson, New York.—p. 253.

Generalized Carcinomatous Metastasis of Bones. — In August, 1925, Walker's patient, aged 45, discovered a small, painless and insensitive lump in the left breast. In February, 1926, a surgeon removed her left breast and axillary glands. A microscopic examination of the growth was not made. In April, 1926, she suffered from a very severe stomatitis, undoubtedly mercurial in origin. The patient complained of moderate intermittent pain in the right subscapular region. Roentgenographic examination of the thorax showed no abnormality of its contents, but all bones in the field of this roentgenogram showed the presence of innumerable circular or oval areas of diminished density, having well defined smooth margins. The same condition existed in all the bones except those of the hands, feet and distal halves of the forearms and legs. The woman died in December, 1926. Complete autopsy was not obtainable, but a specimen of bone from the upper end of the humerus was removed and examined. The tumors were typical of adenocarcinoma.

Roentgenologic Evidence of Hunger Pain.—A method is described by Martin and Rogers whereby the gastric motility characteristic of hunger may be examined roentgenographically. The primary or essential element in the painful hunger contraction appears to be a complete circular constriction in the lower third of the stomach. Contractions of the upper stomach may or may not occur simultaneously with this antral contraction. During the period of incomplete gastric tetanus which may occur during hunger, several changes were observed including circular contractions of the antrum, a general shortening of the stomach and a wave distribution suggesting peristaltic activity at times. Rhythmic changes in the fundus, described by certain physiologists as the cause of the tonus changes, were not observed. These tonus variations appear to be due to partially relaxed contraction waves mostly in the lower portion of the stomach.

Radiotherapy of Hodgkin's Disease.—Four cases are cited by Desjardins to show conclusively that careful radiotherapy exerts a strikingly beneficial influence on the lymphatic hyperplasia incident to lymphosarcoma and Hodgkin's disease, and that the symptoms consequent on such adenopathy are relieved more or less completely for long or for short periods, depending on the more or less acute or chronic nature of the disease, on the stage it has reached when the treatment is started, and on the faithfulness of the patient's cooperation.

Radium Therapy for Uterine Hemorrhage.—Bower and Clark assert that the amount of radium sufficient to stop idiopathic hemorrhage, or hemorrhage due to benign uterine growths, does not produce a demonstrable microscopic change in the ovarian blood vessels or graafian follicles.

Anatomic Study of Colon in Pulmonary Tuberculosis.—The data given by Halpert and Sampson refer especially to the skeletal position of the cecum, the length and shape of the ascending colon, the shape and skeletal position of the hepatic flexure, transverse colon and sigmoid, and the skeletal position of the greater curvature of the stomach. Observations in 150 cases, seventy-five males and seventy-five females, are presented, and some of the differences noted in the two sexes are pointed out; e. g., the transverse colon was located above the level of the promontorium in 45 per cent of the males and in only 12 per cent of the females; the greater curvature of the stomach was found, as an average, to reach one vertebra lower in females than in males. A perfect fusion was inferred in 44 per cent; nonfusion, that is an absence of the so-called gastrocolic ligament, in about 33 per cent; imperfect fusion in about 15 per cent, and an irregular fusion in 6 per cent. In the remaining 2 per cent of the cases the greater curvature of the stomach was seen below the transverse colon. Adhesions between the ascending and the transverse colon were inferred in 56 per cent, and between the transverse and the descending colon in about 42 per cent of the 132 cases in which the splenic flexure was properly outlined.

Annals of Clinical Medicine, Baltimore

5: 753-831 (Feb.) 1927

Treatment of Cancer by Lead in Eighteenth Century. C. V. Weller, Ann Arbor, Mich.—p. 753.

*Physiologic Effect of External Heat on Human Body. R. Pemberton, Philadelphia.—p. 763.

*Pituitary Gland and Cholesterol Metabolism. R. C. Moehlig and H. B. Ainslee, Detroit.—p. 772.

Minimum Standard as Applied to Internal Medicine. D. S. Lewis, Montreal.—p. 780.

*Relationship Between Acute Infectious and Chronic Diseases. J. H. Barach, Pittsburgh.—p. 784.

Should Whole Wheat Products Displace Refined Products? E. Larson, University, Ala.—p. 800.

Intramuscular Abscesses Complicating Pneumonia. E. G. Wakefield, Washington, D. C.—p. 804.

*Etiologic Relationship of Monilia Psilosis to Pernicious Anemia. A. S. Warthin, Ann Arbor, Mich.—p. 808.

Effect of Heat on Body.—Pemberton advises that persons concerned with the application of heat to the human body should inform themselves as to the general nature of the reaction produced in order that there may be a more intelligent appreciation of what is accomplished and of the dangers involved.

Pituitary and Cholesterol Metabolism.—Clinical data are presented by Moehlig and Ainslee to show that the pituitary gland regulates cholesterol metabolism and the tissues of mesenchymal origin. Such diverse clinical entities as atherosclerosis, hypertension, certain types of nephritis, disturbances in blood volume, cholelithiasis, diabetes, and uterine fibroids are found to have important relations to states of pituitary hyperfunction and exhaustion. It is also pointed out that many diseases may be considered as due to exhaustion of the pituitary mechanism, just as diabetes may be, at times, due to exhaustion of the pancreatic mechanism.

Relation Between Acute Infections and Chronic Disease.—Barach endeavored to determine whether there is a relationship between certain acute infectious diseases of the first half of life and certain chronic diseases which commonly occur in the second half of life. He constructed a series of curves based on the acute infectious disease history as it occurred in a group of 142 gastro-intestinal cases, 156 cases of endocrine disturbances, 179 cases of neuroses, eighty cases of pulmonary tuberculosis, 143 cases of arterial hypertension, 226 cases of diabetes, 171 cardiac cases, and sixty-seven cases of chronic nephritis. These curves are superimposed on the all disease curve, and they revealed certain facts. In cardiac patients, rheumatic fever was the commonest acute infectious disease. In hypertension, diabetes and nephritis, typhoid was the most common disease. The pulmonary tuberculosis group showed an excess in cases of tonsillitis, acute colds and pneumonia.

Etiologic Relationship of Monilia to Pernicious Anemia.—Warthin has been unable to confirm Wood's work as to the production of a hemolytic anemia by means of feeding cultures of *Monilia psilosis* to guinea-pigs, or by means of intravenous injections in rabbits of a glucose water filtrate of living cultures of these organisms over periods of from two to six weeks Of the strains used, only one, the Johnson-Breidigam, isolated from a case of tropical sprue, was able to produce a mycotic septicemia with focal embolic lesions, when injected in a living suspension into the blood stream Even under these conditions, no evidence of any toxic or hemolytic action was shown So far then as the etiologic identity of sprue and pernicious anemia, and the ability of *Monilia psilosis* to produce a hemolytic anemia are concerned, Warthin's experimental investigation is wholly negative

Archives of Dermatology and Syphilology, Chicago

15. 241 386 (March) 1927

*Etiology of Maduromycosis J A Gammel Cleveland —p 241
*Acne Agminata True Skin Tuberculosis I R Maloney, New York —p 285
*Cases from Central Hospital Bangkok, Siam R W Mendelson, New Orleans —p 298
*Pityriasis Rosea R S Weiss C W Lane and W A Showman, St Louis —p 304

Etiology of Maduromycosis—Seventeen species of *Maduromycoses* belonging to different classes and genera were collected by Gammel as causative agents in this disease There have been reported so far in the United States twenty one cases of mycetoma, of which only three were maduromycosis To this number are added three cases seen by other observers The author reports one case from which he isolated and obtained a culture of *Madurella americana*

Acne Agminata· True Skin Tuberculosis.—Acne agminata (acnitis) is classified as one of the tuberculids about whose etiology there has been considerable discussion Maloney says that the general failure to find tubercle bacilli in stained sections, the failure to find tuberculous organisms in smears the lack of success in producing tuberculosis in animal experimentations with material taken from these lesions and the frequent negative results in tuberculin skin tests tend to show that acne agminata, or acnitis, is not an example of true tuberculosis but that it may possibly be accounted for by the toxin theory However, the histologic picture in all cases reported has been that either of a tuberculous granuloma or of an arrangement closely simulating it This is particularly true in the case reported by Maloney He concludes that acne agminata is a true tuberculosis of the skin, and that it is probably a manifestation of allergy in a person who has an active or latent focus of tuberculosis It is probably due to an endogenous reinoculation or reinfection

Cases from Siam—The cases reported by Mendelson include papillary adenomas of the sweat glands, amebic dysentery with extensive ulceration of the colon and an external opening, endothelial sarcoma of the tongue, carcinoma of the lips and cheek in a betel nut chewer, and frambesia and gangosa

Pityriasis Rosea—A critical study of a series of 380 cases of pityriasis rosea is presented by Weiss et al Cases are reported featuring lesions on the face, neck, palms, soles and calp concomitance of epidermophytosis and pityriasis rosea, vesicular eruptions, second attacks of the disease, persistent relapsing and recurrent eruptions, and apparent examples of infection

Archives of Neurology and Psychiatry, Chicago

17: 285 426 (March) 1927

Attempt to Identify Central Cells Mediating Kinesthetic Sense in Extrinsic Eye Muscles A J McLean Boston p 285
*Neurologic Complications Associated with Congenital Stenosis of Isthmus of Aorta H W Woltman and W D Shelden, Rochester, Minn —p 303
*Nature of Cerebrospinal Fluid F Fremont Smith, Boston —p 317
Internal Hydrocephalus and Hypopituitarism E B Fink, Chicago —p 332
Myasthenia Gravis M Keschner and I Strauss, New York —p 337

Neurologic Complication of Stenosed Aorta—Woltman and Shelden report a case of cerebral aneurysm with rupture, and a case of intermittent lameness presumably related to stenosis of the isthmus of the aorta

Nature of Cerebrospinal Fluid.—Fremont-Smith says that there is no good evidence for the secretion of cerebrospinal fluid, that the evidence taken as a whole is overwhelmingly in favor of dialysis, and that the laws which determine the simple membrane-equilibrium existing between the plasma and the cerebrospinal fluid have a fundamental significance for the mechanism of fluid exchange in the organism

Boston Medical and Surgical Journal

196: 421 461 (March 17) 1927

Injury to Kidney Without Open Wound P E. Truesdale, Fall River, Mass —p 421
Dr Robert Knox and Edinburgh Murders. W H Robey, Boston —p 427

196 465 508 (March 24) 1927

Staphylococcus Infection of Spinal Meninges. K Emerson, Worcester, Mass —p 465
Carcinoma of Stomach I R Lampson, Hartford, Conn —p 468
*Heart Attacks H B Sprague, Boston —p 472
Medical Practice in New England in 1792 G Van Ness Dearborn, New York —p 476

Heart Attacks—The expression "heart attack" is used very loosely to explain a composite group of sudden or paroxysmal syndromes characterized by symptoms such as palpitation, dyspnea, chest pain, syncope, cyanosis or convulsions Sprague thinks that a large number of these are definitely related to heart abnormalities but should be more accurately subdivided into such groups as have been suggested Many such attacks are not cardiac in origin, and the heart should not be held responsible for the symptoms Certain conditions which are the real causes of such paroxysms have been noted Stress is laid on the importance in differential diagnosis of (1) a careful history of the exact symptomatology, (2) a consideration of the age and type of patient, (3) the physical examination apart from what can be found in the heart, and (4) the aid which can be secured from electrocardiographic and roentgen ray study.

Canadian Medical Association Journal, Montreal

17: 277 388 (March) 1927

Metabolic Factors in Treatment of Tuberculosis J C Meakins, Montreal —p 277
Functions of Woman's Clinic J W Williams Baltimore —p 282
Pain in Lower Abdomen G E Wilson, England —p 285.
Appendix Problem C Howard, Kingston, Ont —p 289
Focal Infection in Relation to Systemic Disease. J W Auld, Calgary. p 294
Extra Uterine Pregnancy Five Cases B C Hardiman, Fort William, Ont p 297
Multiple Myeloma with Widely Disseminated Metastases A G Nicholls, Halifax N S p. 301
*Anemia of Cancer of Gastro Intestinal Tract One Hundred and Eighty Seven Cases D Eisen Toronto —p 307
*Miostagmin Reaction in Diagnosis of Carcinoma I Green, Montreal —p 313
Deep Muscles of Back Infantile Paralysis I M Thompson, Montreal —p 317
Nova Scotia's Changing Statistics A C Jost, Halifax —p 319
Malignancy in Dermoid Cyst of Ovary D S Forster, Montreal —p 322
'Saddle Nose' Deformity in Children J G Strachan, Toronto —p 324
*Hereditary Abnormalities of Eye III Entire Eyeball M T Macklin, London Ont — p 327
Treatment of Early Malignancy of Larynx by Electrodesiccation and Radium R H Craig, Montreal —p. 331
Case of Hydrops Neonatorum W. J Stevens, Ottawa —p 333.
Injury to Right Knee Three Cases G M White, Montreal.—p 334
Generalized Nontraumatic Subcutaneous Emphysema in Young Child M W Bloomberg Montreal —p 336

Anemia of Cancer of Stomach.—An outstanding observation made by Eisen is the fact that cancer of the stomach is associated with an anemia which is more severe than that accompanying cancer in any other portion of the gastro-intestinal tract On the whole, the impression is given by this record that the degree of an anemia is dependent on the balance of many processes, among which hemorrhage and the impaired nutrition associated with gastric achylia or with obstruction in the gastro-intestinal tract play important roles The red cell counts and the hemoglobin estimations were higher in direct proportion to the duration of the disease The age of the patient did not seem to have a specific effect on the degree of the anemia. The cases of cancer of the esophagus showed no evidence of concentration of the blood serum. The most severe anemia was found associated with cancer of the stomach. In this disease the counts were particularly low in those cases in which hemorrhage was a marked clinical symptom; but the cases based apparently on an old ulcer history showed a red cell count above the average. The cases of cancer of the stomach associated with emaciation showed a low count, presumably due to impairment of digestion. Low counts were also usually found in cases in which the tumor, by its size or situation, caused obstruction. Adenocarcinoma seems to be associated with a more marked anemia than scirrhus or colloid cancer, probably because of its greater tendency to cause ulceration There is no apparent relationship between the extent of involvement and degree of dissemination and the grade of the anemia. Patients who had been subjected to operative intervention or radiotherapy did not present any definite alteration in the state of their anemia as a result of such treatment.

Miostagmin Test for Cancer.—In Green's opinion, the miostagmin reaction, within its limits and in expert hands, seems to be of the greatest help in incipient and obscure cases of malignant growths. The ricinolic-linolic antigen of Ascoli and Izar, in his hands, has proved less constant in its efficacy than the capronic acid antigen of Grevé. The miostagmin reaction is always negative in human sarcoma, while in mouse sarcoma, when synthetic antigens are used, it has not proved itself to be of any practical importance.

Inherited Microphthalmus.—Summing up the inheritance in microphthalmus, Macklin says that a condition which is diagnosed under that name may apparently be inherited either as a recessive, a dominant, or a sex-linked recessive condition. In any case, the person so affected should not reproduce, but the advice to be given to the brothers and sisters of the affected individual would depend on an investigation of the family history. Parents who have produced one microphthalmic child should not have any more offspring.

Colorado Medicine, Denver

24: 63-100 (March) 1927

Thymus Gland. E. Boyd, Minneapolis.—p. 66.
Diseases of Thyroid. G. B. Kent, Denver.—p. 68.
Medical Aspect of Goiter. T. D. Cunningham, Denver.—p. 73.
Surgery of Thyroid. J. E. Struthers, Denver.—p. 78.
Ambulatory Treatment of Fracture of Big Toe. H. I. Barnard, Denver.—p. 81.
Treatment of Diabetes Mellitus. C. F. Kemper, Denver.—p. 83.
Obesity. H. Gauss, Denver.—p. 88.

Florida Medical Association Journal, Jacksonville

13: 200-223 (March) 1927

Bronchial Asthma: Relation to Sinus Disease in Children. M. A. Lischkoff and J. H. Fellows, Pensacola.—p. 200.
Early Pulmonary Tuberculosis Roentgenologically Considered. H. O. Brown, Clearwater.—p. 204.
Case of Tetanus. W. H. Watters, Miami.—p. 207.
*Extragenital Chancre. C. F. Roche and T. B. Hall, Miami Beach.—p. 208.

Anal Chancre.—In the case reported by Roche and Hall, the chancre was situated on an external thrombotic hemorrhoid. The patient stated that he had been markedly constipated. The condition would not yield to the usual type of cathartics, so he conceived the idea of borrowing a douche bag from the room of one of the female employees of the hotel for the purpose of taking enemas.

Illinois Medical Journal, Oak Park

51: 169-252 (March) 1927

Diseases of Biliary Tracts. J. Brams, K. A. Meyer and W. A. Brams, Chicago.—p. 190.
Community Responsibility for Health Education. H. S. Cumming, Washington, D. C.—p. 194.
Esophagoscopy and Associated Problems. H. R. Watkins, Bloomington.—p. 199.
Surgical Treatment of Congenital Umbilical Hernia. H. P. Saunders, Chicago.—p. 204.
Erythremia with Low Hemoglobin. J. C. Redington, Galesburg—p. 207.
*Diet Fads. J. H. Kellogg, Battle Creek, Mich.—p. 210.
*Hernia: Public Health Problem. E. Andrews, Chicago.—p. 216.
Surgical Indications in Fibroid Uteri. W. A. N. Dorland, Chicago.—p. 219.
Acute Perforations of Stomach and Duodenum. F. B. McCarty, Chicago.—p. 224.
What Shall Be Done with Prostatic? D. N. Eisendrath, Chicago.—p. 227.
Otologic Complications of Basal Skull Fracture. C. F. Yerger, Chicago.—p. 230.
*Traumatic Gumma: Relation to Compensation Insurance. J. P. Hahn, Galesburg.—p. 238.
*Mumps of Lacrimal Glands. J. E. Lebensohn, Chicago.—p. 241.
Fundus Occuli in Tryparsamide Treatment of General Paralysis of Insane. J. H. Roth, Kankakee.—p. 242.

Diet Fads.—Kellogg emphasizes that: 1. Dietetic fads may prove dangerous. Physiology, not fashion or empiricism, should guide physicians in prescribing foods as well as drugs. 2. Prolonged fasting is a drastic and dangerous procedure that is very rarely indicated. When undertaken, it should be under the care only of a qualified physician. 3. The popular fear of roughage is quite unfounded. Coarse foods rarely irritate the intestine; they only titillate. The bowels should be trained to evacuate residues and wastes three times a day, or after each meal. 4. The excessive use of cereals and other foods which leave an acid residue, especially meats and eggs, tends to disturb the chemical balance of the body, and thus may become a cause of widespread invalidism and inefficiency. The remedy is to be found in a freer use of milk, potatoes, fresh vegetables and fruits.

Hernia: Public Health Problem.—Andrews estimates that there are from four to six million sufferers from hernia in this country, and that 99 per cent of these can be restored to a normal state by proper care and without any mortality.

Traumatic Gumma and Compensation Insurance.—Hahn sees a connection between syphilis and a trauma which shows an indisposition to heal out of proportion to the extent of the injury. He is of the opinion that in some cases of ununited fractures in which the administration of thyroid has been beneficial, the success of the treatment may have resulted from the effect of the contained iodine on a coincidental condition of syphilis.

Mumps of Lacrimal Glands.—Lebensohn reports a case of mumps in which only the lacrimal glands were involved. As possible causes of this condition, influenza, rheumatism, gonorrhea, leukemia, smallpox, syphilis, tuberculosis and Mikulicz' diseases were considered and ruled out. The presumptive diagnosis was finally narrowed down to mumps.

Johns Hopkins Hospital Bulletin, Baltimore

40: 63-115 (Feb.) 1927

Skin Reactions to Human Serums. E. H. Chant and L. N. Gay, Baltimore.—p. 63.
*Combined Acrocephaly and Syndactylism in Mother and Daughter. A. A. Weech, Baltimore.—p. 73.
Sickle Cell Anemia. H. W. Josephs, Baltimore.—p. 77.
*Probable Presence of Increased Amounts of Guanidine in Blood of Patients with Arterial Hypertension. R. H. Major and C. J. Weber, Kansas City, Kan.—p. 85.
Rôle of Capillaries and Their Endothelium in Distribution of Colloidal Carbon by Blood Stream. R. M. Brickner, Baltimore.—p. 90.

Familial Acrocephaly and Syndactylism.—The deformities of the head, hands and feet of the mother, aged 19, and her daughter, aged 11 months, were almost identical in the cases reported by Weech. These two cases support the view expressed by Park and Powers that the combined malformations are evidences of germ plasm defects rather than the result of externally operating causes.

Guanidine in Blood in Arterial Hypertension.—The results of this series of observations made by Major and Weber agree with those of Pfiffner and Myers, that methyl guanidine, if present in the normal blood, is in amounts not exceeding 0.2 mg. per hundred cubic centimeters. Guanidine was present in the blood of twenty-one patients suffering from arterial hypertension, and in one patient with nephritis who did not have an elevation of blood pressure. Several patients with arterial hypertension have not shown an increase in blood "methyl guanidine." The authors do not yet know whether the substance which gives this increase in color in the blood of persons with hypertension is methyl guanidine or some other guanidine compound. These observations suggest, however, that the blood of certain patients suffering from arterial hypertension contains something which is present in greater amounts than in normal blood

Journal of Bacteriology, Baltimore

13: 147 233 (March) 1927

Problems of Bacteriologist in His Relations to Medicine and Public Health H Zinsser, Boston —p 147

*Relationship Between Surface Tension and Action of Disinfectants; Hexylresorcinol M Frobisher, Jr, Baltimore —p 163

Modification of Kligler Lead Acetate Medium S I Bailey and G R Lacy, Pittsburgh —p 183

Influence of Antiserum and of Animal Passage on Virulence and Electrophoresis of Pneumococci M A Jacobson and I S Falk, Chicago —p 191

Sugar as Source of Anaerobes Causing Explosion of Chocolate Candies. J Weinzirl Seattle —p 203

Irregularities in Test for B Coli in Water R E Thompson —p 209

Light Switch for Microscope C S Mudge, Davis, Calif —p 223

Anaerobiosis Produced by Means of Central Catalyzing Station L Boez, Strasbourg Germany —p 227

Relation Between Surface Tension and Antiseptic Action.—Data are presented by Frobisher in support of the view that low surface tension plays an important role in disinfection He says that the bactericidal powers of phenol (carbolic acid) and of hexylresorcinol against *Bacillus typhosus* may be enhanced by reducing the surface tension of their solutions by the addition of suitable quantities of sodium oleate or ethyl acetate An excess of sodium oleate, when added to phenol or hexylresorcinol, inhibits the bactericidal action of the latter substances The addition of small amounts (up to 3 per cent) of hexylresorcinol to at least one type of commercial hand soap is shown not to lend the soap additional power against *Bacillus typhosus* at 20 C or 37 C A direct relation exists between bactericidal power and ability to lower surface tension in two series of homologous resorcinol derivatives, including compounds ranging from resorcinol to dodecylresorcinol and dodecylylresorcinol, including both normal and isomeric compounds, and numbering nineteen substances in all

Journal of Experimental Medicine, Baltimore

45: 399 570 (March 1) 1927

Experimental Bone Marrow Reactions II Normoblastosis Produced by India Ink Influence of Pregnancy G L Muller, Boston —p 399

*Local Immunity in Experimental Erysipelas H L Amoss and F A Bliss, Baltimore —p 411

*Blood Fibrin in Upper Gastro Intestinal Tract Obstruction R L Haden and T G Orr Kansas City Kan —p 427

*Excretion of Nitrogen After Upper Gastro Intestinal Tract Obstruction. R L Haden and T G Orr, Kansas City, Kan —p 433

*Etiology and Pathology of Oroya Fever VI H Noguchi, New York —p 437

*Id VII Response of Skin of Simians to Bartonella Bacilliformis H Noguchi, New York —p 455

*Production of Wassermann Reagins by Means of Trypanosomes K. Landsteiner and J van der Scheer, New York —p 465

*Influence of Light on Growth and Malignancy of Transplantable Neoplasm of Rabbit L Pearce and C M Van Allen, New York —p 483

*Influence of Light on Reaction to Infection in Experimental Syphilis. W H Brown and L Pearce, New York —p 497

Infectious Granular Vaginitis of Cows F S Jones and R B Little, Princeton N J —p 519

Epidemiologic Studies on Respiratory Infections of Rabbit IX L T. Webster, New York —p 529

Id X D T Smith, Ray Brook, N Y —p 553

*Studies on Secretion of Pancreas R Elman and J M McCaughan, St Louis —p 561

Local Immunity in Experimental Erysipelas.—Evidence pointing to the production of a true local tissue immunity following local streptococcus infection has been reported In the experiments reported by Amoss and Bliss, strains of hemolytic streptococci cultivated from the skin of patients with facial erysipelas have been employed They show that not only the areas of skin actually involved in the reaction attending the immunization are refractory to subsequent injections, but that the field in the general direction of the *lymph flow is likewise relatively resistant*

Blood Fibrin in Upper Intestinal Tract Obstruction —Haden and Orr assert that after high gastro-intestinal tract obstruction, the blood fibrin increases rapidly The change is more marked in animals with obstruction of the cardiac end of the stomach. The rise in fibrin parallels closely the toxemia characteristic of such conditions These results indicate that liver insufficiency cannot be the cause of death in such obstructions

Excretion of Nitrogen After Upper Intestinal Tract Obstruction.—After obstruction of the cardiac end of the stomach and after obstruction and release of the pylorus, Haden and Orr aver there is a marked increase in nonprotein nitrogen excretion This increase is due to accelerated *protein destruction, which may result from* the great fluid loss, or to the action of some toxic body

Etiology of Oroya Fever.—This report by Noguchi is based on the examination of fourteen monkeys that succumbed to severe infection with *Bartonella bacilliformis* The pathologic changes observed in the organs were similar to those found in human organs in persons who died from Oroya fever

Experimental Verruga.—The cutaneous lesions known as verruga nodular, verruga mular and verruga miliar have been reproduced in monkeys by Noguchi, by means of inoculation with *Bartonella bacilliformis*

Wassermann Reaction with Trypanosomes.—The main result of the experiments described by Landsteiner and van der Scheer is that the serums of rabbits become strongly Wassermann positive on injections of dead trypanosomes *Flocculation reactions, according to Sachs-Georgi,* corresponded to the complement fixation

Effect of Light on Transplanted Neoplasm.—An experiment is reported by Pearce and Van Allen in which an environment of constant and continuous light, excluding the shorter ultraviolet rays, and one of constant darkness, have influenced the course and character of a malignant disease of rabbits induced by a transplantable neoplasm Under the influence of constant light, the level of malignancy was observed to be low, under the influence of constant darkness, the level of malignancy was somewhat lower than in the control animals living under ordinary indoor light conditions, but the level was not as low as among the animals constantly illuminated These observations furnish experimental evidence in support of the idea that there is a correlation between the external factor of light on the one hand, and the manifestations of an experimental malignant disease on the other

Influence of Light on Experimental Syphilis.—A series of experiments was carried out by Brown and Pearce for the purpose of determining whether the reaction of rabbits inoculated with *Spirochæta pallida* might be influenced by their light environment The conditions compared were (1) diffuse sunlight filtered through window glass and subject to variations due to natural causes, (2) constant and continuous exposure to artificial light with a wave length of from 3,022 to 5,790 angstrom units (Cooper Hewitt), and (3) complete exclusion of light. The results showed clearly that each of these conditions produced a distinctive effect, and that the effect tended to conform to the nature of the environmental condition In general, the efficiency of the reaction to infection increased *with the amount of light* received and with the constancy of the exposure

Studies on Secretion of Pancreas.—By appropriate intubation of the main pancreatic duct of the dog, Elman and McCaughan have collected the total external secretion of the pancreas under sterile conditions. When all of the secretion is thus collected, exitus occurs in a characteristic way in about a week with anorexia, gastric irritability, vomiting and asthenia.

Journal of General Physiology, Baltimore

8 509 726 (March 7) 1927 Jacques Loeb Memorial

Reactions of Cerianthus to Light M M Moore, Naples —p 509

*Metabolism of Tumors in Body. O. Warburg, F. Wind and E Negelein, Berlin Dahlem —p 519

Aerobic and Anaerobic Metabolism of Carbohydrates O. Meyerhof, Berlin Dahlem —p 531

Influence of Backward Reaction in Peptic Hydrolysis of Albumin C A Morrell, H Borsook and H Wasteneys, Toronto —p 601

Physical Chemistry of Proteins VI Activity Coefficients of Ions I J Cohn and A M Prentiss, Boston —p 619

Molecular Orientation in Living Matter. W B Hardy, Cambridge, England —p 641

*Parts Played by Neural and Humoral Influences in Animal Reactions. E. Sharpey-Schafer, Edinburgh.—p. 645.
Chemist's Homage to Work of Biologist. H. E. Armstrong, London.—p. 653.
Orientation of Animals by Opposed Beams of Light. W. J. Crozier, Cambridge, England.—p. 671.
Applicability of Thermodynamics to Phenomena of Life. F. G. Donnan, London.—p. 685.
Relation of Age of Female to Crossing Over in Third Chromosome of Drosophila Melanogaster. C. B. Bridges, New York.—p. 689.
Gas and Electrolyte Equilibria in Blood: IX. A. B. Hastings, H. A. Salvesen, J. Sendroy, Jr., and D. D. Van Slyke, Baltimore.—p. 701.
*Epidemic Encephalitis and Simple Herpes. S. Flexner, Baltimore.—p 713.

10: 469-622 (March 20) 1927

Effect of Certain Respiratory Inhibitors on Respiration of Chlorella. R. Emerson, Berlin-Dahlem.—p. 469.
Thermal Increments for Pulsation-Frequency in "Accessory Hearts" of Notonecta. W. J. Crozier and T. J. B. Stier, Cambridge, Mass.—p. 479
Temperature and Frequency of Cardiac Contractions in Embryos of Limulus. W. J. Crozier and T. J. B. Stier, Cambridge, Mass.—p. 501.
Geotropic Orientation of Young Rats. W. J. Crozier and G. Pincus, Cambridge, Mass.—p. 519.
Geotropic Creeping of Young Rats. G. Pincus, Cambridge, Mass —p. 525.
Potentiometric Studies on Intracellular *p*H Values of Single Fundulus Egg Cells. J. H. Bodine, Woods Hole, Mass.—p. 533.
Precise Measurement of Hemolysin. C. B. Coulter, New York.—p. 541.
Protein Associated with Hemolysin in Rabbit Serum and Plasma. C. B. Coulter, New York.—p. 545.
"Galvanotropism" of Roots. A. E. Navez, Cambridge, Mass.—p. 551.
Free Energy of Nitrogen Fixation by Living Forms. D. Burk, Berkeley, Calif.—p. 559.
Studies on Permeability of Membranes: I. Introduction and Diffusion of Ions Across Dried Collodion Membrane. L. Michaelis and W. A. Perlzweig, Woods Hole, Mass.—p. 575.
Phosphate Ion as Promoter Catalyst of Respiration. C. J. Lyon, Cambridge, Mass.—p. 599.
Arsenate as Catalyst of Oxidation. C. J. Lyon, Cambridge, Mass.—p. 617.

Metabolism of Tumors.—Warburg et al. discuss the question of whether tumor cells in living animals can be killed off through lack of energy, and the related question of how the tumors are supplied with oxygen and glucose in the body.

Control of Body Functions.—Sharpey-Schafer states that in the higher animals control of the functions of the body is dual, being partly neural and partly humoral. It is therefore inferred that in all cases in which a dual control exists, the neural, which is more rapid in its action, is primary, and the humoral, secondary; and that the object of the humoral influence is to continue and prolong the effect of the neural influence, and thus to effect an economy of nervous energy.

Herpes and Encephalitis Virus Not Identical.—Flexner explains the state of knowledge of the etiology of epidemic encephalitis, and draws a line of demarcation between the established virus of simple herpes and the hypothetic virus of epidemic encephalitis. He says that the experimental observations on rabbits do not suffice to prove the identity of the herpes with the encephalitis virus.

Jour. Pharmacol. & Exper. Therap., Baltimore

30: 351-427 (March) 1927

Effect of Atropine on Gastro-Intestinal Hemorrhage Produced by Witte's Peptone. E. G. Gross, New Haven, Conn.—p. 351.
Santonin Xanthopsia. W. Marshall, Aberdeen, Scotland.—p. 361.
Santonin Excretion and Santonin Xanthopsia. W. Marshall, Aberdeen, Scotland.—p. 389.
*Elimination of Iodine After Administration of Various Iodine Compounds. F. R. Greenbaum and G. W. Raiziss, Philadelphia.—p. 407.

Elimination of Iodine.—Greenbaum and Raiziss assert that iodides of the alkali metals, administered to animals in single massive doses by mouth, are eliminated in the urine almost quantitatively in a short period of time. The excretion of potassium iodide occurs within five to six days, and that of sodium iodide, in from three to four days. With both iodides, the greatest proportion of the iodine is excreted during the first twenty-four hours. After this period the daily elimination is very small. Potassium iodide seems to be eliminated by the kidney with greater difficulty than sodium iodide, and sometimes causes temporary retention of iodine in the body. Only traces of iodine were found in the feces. The results obtained for the elimination of calcium iodide were entirely different from those obtained with the iodides of the alkali metals. If it is administered by mouth, the major part, or at least 50 per cent of its iodine content, is eliminated in the urine, while the remainder is found in the feces. As in the case of the alkali iodides, the greater portion of the iodine of the calcium-iodide is eliminated during the first twenty-four hours.

Journal of Urology, Baltimore

17: 261-394 (March) 1927

*Coincidence of Renal Tuberculosis with Hydronephrosis. R. E. Cumming, Detroit.—p. 261.
*Value of Guinea-Pig Inoculations in Diagnosis of Renal Tuberculosis. H. D. Morse and W. F. Braasch, Rochester, Minn.—p. 287.
*Thrombosis and Thrombophlebitis of Renal Vein. P. W. Aschner, New York.—p. 309.
*Necrosis of Ureter: Perforation: Periureteral Abscess. N. P. Rathbun, New York.—p. 329.
*Telangiectasis of Kidney Simulating Renal Tumor. P. A. Jacobs and W. Rosenberg, Cleveland.—p. 337.
*Retroperitoneal Lymphoblastoma Simulating Kidney Neoplasm. C. P. Mathé, San Francisco.—p. 357.
*Use of Phenolsulphonphthalein Test. J. C. Negley, Los Angeles.—p. 367.
Bladder Decompression. M. F. Campbell, New York.—p. 371.
Congenital Hypertrophy of Verumontanum as Cause of Urinary Retention. W. W. Robinson, Chicago.—p. 381.
Tolson Punch Electrode. R. V. Day, Los Angeles.—p. 391.
Ureteral Dilator. G. R. Livermore, Memphis, Tenn.—p. 393.

Renal Tuberculosis with Hydronephrosis.—Hydronephrosis and renal tuberculosis occur simultaneously and in varied fashion. Nephrectomy can safely be accomplished in most cases, even if the remaining kidney is hydronephrotic, provided the infection in that kidney is controlled first and treated or cured after operation. Surgical treatment of renal tuberculosis, being accepted as the correct procedure whenever possible, is the proper therapeutic measure for tuberculosis in conjunction with hydronephrosis. Certain accessory methods of postoperative care, such as dietetic or physiotherapeutic, or the use of tuberculin, have proved of great value in the series of cases reported by Cumming.

Value of Guinea-Pig Inoculations in Diagnosis.—In eight of a series of forty-five cases of proved renal tuberculosis analyzed by Morse and Braasch, the guinea-pig reactions were negative. This discrepancy is explained by: (*a*) the inherent defensive mechanism of guinea-pigs, which varies according to the number and type of bacilli injected; (*b*) fibrosis and encapsulation of the infected area in the patient; (*c*) the appearance of *Bacillus tuberculosis* in showers, so that at intervals the urine may be free from it. In 109 cases of proved renal tuberculosis in which one kidney was apparently healthy, guinea-pig inoculation was positive in 18 per cent. The authors assert that the diagnosis of renal tuberculosis should not be decided from guinea-pig inoculation alone. Other laboratory or cystoscopic aids should be used to establish it. In order of importance these are urography, microscopic study of catheterized ureteral specimens, cystoscopic data, clinical data, and, particularly, examination of the genitalia. When the guinea-pig inoculation with urine obtained directly from the kidney is positive, and any of these data suggest a renal lesion, renal tuberculosis is the evident diagnosis. The data referred to may in themselves be sufficient to establish a diagnosis without the positive guinea-pig inoculation.

Thrombophlebitis of Renal Vein.—Aschner reports four cases of thrombophlebitis of the renal vein, two proved at necropsy and one proved by nephrectomy. The fourth, while absolute pathologic proof was lacking, was regarded as a probable case because of the clinical course. While there are not yet reliable diagnostic criteria, it is important for the surgeon to know that this grave complication of renal infection exists, that the kidney can act as a source for metastatic lesions, and that in dealing with the "surgical kidney" it is well to divide the vascular pedicle as far from the organ as is commensurate with safety. The pathologist should bear the condition in mind, for the renal vein frequently escapes adequate scrutiny, and perhaps a more careful study of surgical kidneys will reveal involvement of venous radicles in the parenchyma as a rational explanation of blood stream invasion in these cases.

Necrosis of Ureter.—The points of interest in Rathbun's case are the entire absence of any symptoms referable to the urinary tract, in spite of the gross pathologic changes present, the rather unusual combination of lithiasis and tuberculosis with autonephrectomy, the sudden onset of symptoms simulating a ruptured ectopic pregnancy, and the very unique condition of necrosis of the ureter with periureteral abscess The case, further, was of interest as an illustration of the merit of transfusion and two-stage operations in certain urologic cases

Telangiectasia of Kidney—In the case reported by Jacobs and Rosenberg, aside from the hematuria, there were no clinical evidences of the presence of telangiectasia Hematuria was probably due to communications between the telangiectatic spaces and the calices, brought about by minute ulcerations through the pelvic membrane It is the authors' opinion that telangiectasis of the kidney is not harmful to the patient and may not give symptoms The parenchyma is not interfered with because of its presence Symptoms can occur only as a result of direct or indirect trauma to the kidney area, or when some associated inflammatory process causes ulcerations into the telangiectatic spaces It is then that hematuria presents itself After a careful study of their case, they have come to the conclusion that the hematuria, which is practically the only symptom of telangiectasis of the kidney, is not sufficient reason for a nephrectomy This is indicated only when the hematuria recurs and does not respond to the usual treatment, or when the hematuria is so severe as to cause an alarming anemia

Retroperitoneal Lymphoblastoma.—The necropsy data in the case reported by Mathe verify the observations of clinicians and roentgenologists that deep roentgen ray therapy may cause marked regression of neoplasms without necrosis The beneficial effect of radiation depends on the stimulation of the normal tissue defense against cancer, and the changing of the balance between stroma and parenchyma

Use of Phenolsulphonphthalein Test.—The following variation in the use of the phenolsulphonphthalein test has been tried out by Negley in more than a hundred cases The bladder is washed with sterile water until solution returns clear, and is then filled to a comfortable tolerance with a 0 5 per cent solution of sodium bicarbonate The bladder is inspected in the usual manner for any pathologic changes, and while the sodium bicarbonate solution is still in the bladder, 1 cc of solution containing 6 mg of phenolsulphonphthalein is injected intravenously, the catheterizing telescope, with catheters in position, is introduced, the ureters are visualized, and at the appearance of the phenolsulphonphthalein a deep pink color is noticed when the ureter ejects the urine This pink spurt is noticed for size, as compared to the ureter opening, density of color (comparing the two sides), and strength of spurt, i e, forcible or weak These observations having been quickly determined, the catheters are introduced in the usual manner, and observation is made as to whether there is leakage of the dye alongside the catheters Negley says that this test has many advantages but the technic is difficult to master

Michigan St. Med. Society Journal, Grand Rapids

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Acute Pancreatitis I Abell, Louisville, Ky —p 77
Adenomyoma or Endometrial Implants in Abdominal Wall J P Pratt, Detroit —p 82
Some Phases of Dystocia L E Daniels, Detroit —p 85
Pregnancy and Labor Following Gynecologic Operations R S Siddall, Detroit —p 87
Foreign Bodies in Eyeball J R Rogers, Grand Rapids —p 90
Laryngeal Cancer A C Furstenberg Ann Arbor —p 94
Liver Function Tests in Children S J Levin, Ann Arbor —p 98
Treatment of Fractures of Os Calcis R V Funston, Detroit —p 102
Last Illness and Death of George Washington W A Wells, Washington, D C —p 104
Case of Pin in Appendix H M Nelson, Detroit —p 119
Ruptured Ventral Hernia J E Watson, Detroit —p 120

Minnesota Medicine, St. Paul

10: 65 140 (Feb) 1927

Chronic Pancreatitis J B Deaver, Philadelphia —p 65
Shortcomings in Surgery of Cleft Lip and Palate R F Farr, Minneapolis —p 70
Surgery of Stomach A Schwyzer, St Paul —p 77
Endometrioma Involving Rectum L M Miles, St Paul —p 88
Acute Intestinal Obstruction J F Norman, Crookston —p 93
Fatal Case of Tularemia in Minnesota L H Rutledge, Detroit Lakes —p 97
Epidemic Encephalitis C E Riggs, St Paul —p 100
Surgery of Spleen I Sivertsen, Minneapolis —p 111
Curriculum of Technical School Medicine E P Lyon, Minneapolis —p 116
Therapy of Postencephalitic Parkinson Syndrome Two Cases C E Riggs, St Paul —p 135
Myositis Ossificans H F Jones, Rochester —p 136

New York State Journal of Medicine, New York

27: 277 334 (March 15) 1927

Relation of Medical Student to Cancer Problem B T Simpson, Buffalo —p 277
*Cesarean Section by New Method. G L Brodhead, E G Langrock and C S B Cassasa, New York —p 281
Brain Tumors W L Dandy, Baltimore —p 285
Dissociation Role in Amnesia, Multiple Personality, Obsessions and Somnambulism R Kingman, New York —p 287
Treatment of Hemorrhage in Peptic Ulcer W A Bastedo, New York —p 290
Newer Methods in Bronchoscopy and Esophagoscopy M E Newman, Buffalo —p 294
*Intracranial Hemorrhage in New Born W Sharpe, New York —p 296
Colles Fracture F F McGauley, Schenectady —p 299
Evaluation of Icterus Index Test in Gastro Enterology E W Lipschutz, New York —p 301

Cesarean Section—The procedure described by Brodhead et al is not an improvement on the classic cesarean section, but an operation to be done on those patients in whom a classic section would be fraught with the greatest dangers The method was devised by Dr Charles S B Cassasa, in 1916 The purpose of the operation is to secure a quadrilateral area on the anterior surface of the uterus, through which the baby may be extracted, and at the same time have this area excluded from the general peritoneal cavity. This quadrilateral area, 6 inches long and three-fourths of an inch wide, is obtained by suturing the peritoneum of the anterior abdominal wall to the peritoneum on the anterior surface of the uterus

Intracranial Hemorrhage in New-Born Infants.—Fifty-nine acute cases of extensive intracranial hemorrhage in the new-born have been studied by Sharpe, and 671 chronic cases in children with varying degrees of spastic paralysis and mental retardations have been investigated In selected children with a marked increase of the intracranial pressure, the diagnosis of a former intracranial hemorrhage, most probably occurring at the time of birth, was confirmed by operative and postmortem observations Of 500 consecutive new-born babies on whom a routine spinal puncture was done within from twelve to twenty-four hours after birth, bloody and blood-tinged cerebrospinal fluid was obtained in forty-five One other baby who died before a lumbar puncture was performed—the puncture being made fifteen minutes after death—revealed at necropsy an extensive intracranial hemorrhage with bloody spinal fluid There were three deaths in this series of new-born babies on whom a lumbar puncture revealed blood in the cerebrospinal fluid—two in the first hundred and one in the fourth hundred Postmortem examinations disclosed a large ventricular hemorrhage in the first, extensive supracortical hemorrhage and cerebral edema in the second, and large supracortical, basal, subtentorial and spinal hemorrhage in the third baby Their common signs were stupor and refusal to nurse, convulsive twitches were present in only the third baby

Northwest Medicine, Seattle

26: 125 180 (March) 1927

Treatment of Cancer Relative Importance of Various Agencies Now in Use R C Coffey, Portland, Ore —p 125
Treatment of Cancer of Cervix by Radium O B Wight, Portland, Ore —p 136
*Cancer of Twenty Five Years' Duration H H Kretzler, Edmonds, Wash —p 138
Recent Advances in Physiology A C Ivy, Chicago —p 139
*Obesity and Thinness Specific Dynamic Action of Protein E H Mason, Montreal —p 143
*Disturbed Glucose Metabolism C H Hofrichter, Seattle —p 146
Chronic Ureteritis H W Howard and M LeCocq, Portland, Ore —p 154
Stone in Ureter J Besson, Bend, Ore —p 157
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Congenital Dislocation of Hip C F Eikenbary, Seattle —p 161.
Acute Appendicitis J F Scott, Yakima, Wash —p 162
Papillary Cyst Adenoma of Ovary at 13 J L Holzman, Portland, Ore. —p 164

Cancer of Twenty-Five Years' Duration.—Kretzler's patient first noticed a lump in her right breast, in 1901, at the age of 40. New Year's day, 1902, the breast was amputated because of a diagnosis of cancer Fourteen years later, in 1916, growths recurred in the scar of the operation Various forms of medical and quasimedical treatments were tried with little or no relief When Kretzler first saw her in 1924, she was able to sit up in bed, was in a fair state of nutrition, and was fairly comfortable. There were extensive metastases in the left breast, in the axilla, downward toward the navel, and up along the right side of the neck The lung showed evidence of marked involvement. She died in September, 1926, twenty-five years after the onset of the disease Microscopic examination of tissue confirmed the diagnosis of carcinoma

Obesity and Thinness.—A series of studies on the specific dynamic action of protein, reported by Mason, show that in so-called simple obesity the specific dynamic action of protein is much decreased (ten cases) In obesity of the hypophysial type there is also very little specific dynamic action for protein (five cases) In one case of "constitutional thinness" there is an increased specific dynamic action for protein

Disturbed Glucose Metabolism.—His observations in disturbed glucose metabolism lead Hofrichter to feel that these disturbances are not permanently fixed changes, but constantly fluctuating abnormalities which may progress or improve, being rapidly influenced by acute infections, nervous reactions or pathologic changes The etiology of disturbed glucose metabolism may be shared with that of (1) arteriosclerosis, (2) arthritis, (3) carcinoma, (4) acute and chronic infections, and (5) tuberculosis The ability of the organism to metabolize glucose may be improved, either with a routine embodying diet alone, or by a combination of diet and insulin

South Carolina Medical Association Journal, Greenville

23: 265 284 (Jan) 1927

Cholecystography W. M Sheridan, Spartanburg —p *266*
Cerebral Spastic Paralysis from Orthopedic Side W A Boyd, Columbia. —p 268
Ephedrine in Asthma and Allied Conditions G R Wilkinson, Greenville.—p *272*
Positive Immune Reaction in Smallpox Vaccination. W. C O'Driscoll, Charleston —p. *273*

Virginia Medical Monthly, Richmond

53: 761 820 (March) 1927

*Treatment of Spasmodic Torticollis by Root Section C. C. Coleman, Richmond —p 761
*Treatment of Mercuric Chloride Poisoning C C Haskell, Richmond —p 765
Heart Sounds, Interpretation G Nelson, Richmond —p 769
Purpura of Urinary Tract J F Geisinger, Richmond —p. 772
Reticulo Endothelial System Lymphocyte H E Jordan, University —p 776
Harelip and Cleft Palate J S Horsley, Jr Richmond —p 782
Acute Upper Respiratory Infections W B Blanton, Richmond.—p 787
Grain of Corn in Main Bronchus Bronchoscopic Removal E G Gill, Roanoke —p 792
What's It All About? W Clarkson, Petersburg —p 793
Congenital Torticollis P C Colonna New York.—p 794
Minot Murphy Diet in Treatment of Pernicious Anemia E L Caudill, Narrows —p 796
Radiologic Studies of Gallbladder R G Waterhouse, Kinston, N C —p 798
Contacts in Public Health Work R K Flannagan, Richmond —p 801

Treatment of Spasmodic Torticollis—In a case of intractable spasmodic torticollis, Coleman divided some of the lower spinal filaments of the accessory nerve Spasm of the posterior muscles did not return after the operation, but there was some deviation of the chin to the left. The right accessory nerve was then resected, under local anesthesia, just proximal to its entrance into the sternomastoid muscle Nine months after operation, the patient considers himself practically well

Treatment of Mercuric Chloride Poisoning.—In Haskell's opinion, the various procedures that have been proposed for the treatment of mercuric chloride poisoning, when subjected to a critical test, are, with scarcely an exception, found wanting One conclusion of a constructive nature may be drawn from the facts presented the safest way to prevent death from mercuric chloride poisoning is to prevent absorption; and when the poison has been administered orally, this may be best accomplished by prompt and thorough gastric lavage. Haskell says that in the present state of knowledge, antidotes for mercuric chloride must be looked on as better fitted for affording mental solace to physicians and patients than as being capable of accomplishing a detoxication of the poison.

West Virginia Medical Journal, Charleston

23: 57 112 (Feb) 1927

Periodic Health Examination of Apparent Healthy O S Wightman, New York —p 57
Quinidine Digitalis Substitute? M L Bonar, Morgantown —p 61
Acidosis in Children Treatment T M Barber, Charleston —p 65.
Management of Severe Diabetic. W M Sheppe, Wheeling —p 71
Carcinoma of Esophagus B I Golden, Elkins —p 77
Injuries to Hand A G Rutherford, Welch —p 83
*Double Quinsy with Unusual Sequel E S Dupuy, Beckley —p 87
Treatment of Tetanus—Case Report. W M Sheppe and J W Marsh, Wheeling —p. 87

Cerebral Hemorrhage as Complication of Quinsy.—Dupuy reports a case of double quinsy in which the patient developed a cerebral hemorrhage, which involved the right side of his face, the right arm completely, and the right leg partially He was semiconscious for two weeks, and was in bed two and one-half months Three years later the patient presented a typical picture of a postapoplectic attack. He was able to work, but the mental symptoms, as well as the motor symptoms, remain about the same The speech was of a peculiar hesitant and scanning character

Wisconsin Medical Journal, Milwaukee

26: 129 186 (March) 1927

Biologic Considerations in Handling of Disease A T Holbrook, Milwaukee —p 129
Fractures Individualization in Treatment J L Yates, Milwaukee —p 134
Backache H C Schumm, Milwaukee —p 137
Roentgen Ray in Diseases and Injuries of Skeleton E A Smith, Milwaukee.—p 141
**Hereditary Factor in Inguinal Hernia* J T Morrison, Madison —p 145
Periodic Health Examination with Special Reference to Chest K E Kassowitz, Wauwatosa —p 147
Diagnostic Problems L M Warfield, Milwaukee —p 151
Multiple Serositis with Generalized Anasarca J A Bigler, La Crosse, —p 152
Cardiospasm in Boy of Twelve S J Seeger, Milwaukee —p 154
*Fat Embolism. R E Burns, Madison —p 156

Hereditary Factor in Inguinal Hernia.—The point of interest in the case of inguinal hernia reported by Morrison is the family history, which pointed toward an hereditary factor The patient's father, and the father's brother had a "groin' hernia In a family of eight children, five had inguinal hernias Some of these were present from infancy, and some occurred later In the patient's immediate family of four, three boys and one girl, there were two inguinal hernias The patient's sister, who had an inguinal hernia, married a man who also had an inguinal hernia Of this union, a family of four children all showed inguinal hernias The patient stated that in the family, hernias were considered a common ailment A truss was just as much an article of clothing as a dress or a suit

Pulmonary Fat Embolism.—Burns' patient, aged 22, had a residual poliomyelitis The acute illness, which had left both lower extremities badly paralyzed, had occurred at 8 years of age The patient was very obese She was unable to walk, even with assistance, because of muscular weakness, and marked flexion contracture at hips and knees, together with a partial subluxation at the knees and paralytic equinovarus A manipulation of the feet under anesthesia was advised in order to correct deformity sufficiently that the patient could wear braces As the result of this manipulation, symptoms developed within six hours that led to the diagnosis of pulmonary embolism Recovery was complete in five days.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Medical Journal, London

1: 313-362 (Feb. 19) 1927

Hunter's Ideal and Lister's Practice. B. Moynihan.—p. 313.
*Experimental Radium Arthritis and Articular Neoplasm. A. G. T. Fisher.—p. 319.
*Auriculoventricular Bundle in Bird's Heart. M. R. Drennan.—p. 321.
*Osteoperiosteal Graft in Dangle Foot. J. Gilmour.—p. 322.
Case of Artificial Pneumothorax. B. Hudson.—p. 323.
*Paraplegia (Megalocytic) Cured by Hydrochloric Acid. F. C. Eve.—p. 323.
*Habit Formation in Blood Vessels of Skin. P. B. Mumford.—p. 324.
Intermuscular Lipoma of Calf. J. J. Robb.—p. 325.
*Carcinoma of Heart. T. Lindsay.—p. 325.
Appendicular Colic Associated with Tuberculous Peritonitis Simulating Acute Appendicitis. G. Ralston.—p. 325.
Meningitis as Complication of Pregnancy: Two Cases. A. M. Macqueen.—p. 325.

Experimental Radium Arthritis.—Glass tubes containing radium were introduced by Fisher into the knee joints of rabbits, and well marked proliferation of the cartilage of the inner and upper margin of the trochlear surface of the femur resulted. The introduction of radium contained in platinum tubes resulted in an acute destructive suppurative arthritis of a fulminating type, which necessitated its destruction. In another rabbit, a condition of chronic arthritis of mixed type, or "rheumatoid arthritis," developed. In a third rabbit, a tumor developed from the lower end of the femur. Histologically, the tumor was clearly an ossifying periosteal sarcoma, which had originated from the periosteum covering the intra-articular portion of the diaphysis and the adjacent portion of the epiphysis of the internal femoral condyle.

Auriculoventricular Bundle in Bird's Heart.—Drennan dissected five ostrich hearts, and in each he found a system of fibers somewhat similar to the auriculoventricular bundle of the mammalian heart. The distribution of this system is such as to indicate that it has a similar function to the bundle of His—in short, that it constitutes a true avian auriculoventricular bundle.

Osteoperiosteal Graft in Dangle Foot.—Gilmour endorses this procedure and reports one case in which it was employed. He stresses the importance of accuracy in the process of embedding the grafts, and in not having the graft extend beyond the tibial epiphysis and gain an attachment over the epiphyseal cartilage to the diaphysis. This happened in his case. Clinically, there was good fixation at the ankle, but a mild degree of equinus deformity due to the freer growth of bone at the front of the tibial epiphyseal cartilage, the posterior region having been fixed down, as it were, by the binding pressure of the grafts.

Paraplegia Cured by Hydrochloric Acid.—In the case reported by Eve, diagnosis was possible by measuring the average diameter of the red cells, and by that alone. The patient was exhausted sexually. Hydrochloric acid was not present in the test meal secretions. The interpretation of the case is that, owing to the absence of hydrochloric acid, the intestines became infected with some germ which is capable either of producing the hemolysis of pernicious anemia or of causing the degenerative changes in the spinal cord. Probably the sexual exhaustion was a factor in deciding the incidence on the spinal cord. The patient was given half a pint of hydrochloric acid, three times a day, after food. Its strength was 5 drachms of dilute hydrochloric acid to the pint of sweetened water. He gradually improved, and eventually made a complete recovery.

Habit Formation in Blood Vessels.—According to Mumford a vessel, by the constant use of its power of contraction or dilatation, may acquire the habit of so responding to the same degree when the stimulus is lessened or when another form of stimulus is supplied. Hypersensitivity may remain in a skin vessel for a considerable period after the application of the original stimuli.

Carcinoma of Heart.—Lindsay records a case of primary squamous cell carcinoma of the wall of the left ventricle of the heart occurring in a woman, aged 77, who died from hypostatic pneumonia. The heart was not suspected, but at the postmortem examination a large white tumor, about the size of a hen's egg, was found in the anterior wall of the left ventricle. The whole of the alimentary tract was searched for a primary lesion, but none was found.

Glasgow Medical Journal

107: 65-128 (Feb.) 1927

Massage. R. C. Elmslie.—p. 65.
Tachycardia. G. A. Allan.—p. 74.
Social Aspects of Psychiatry. G. R. F. MacTavish.—p. 85.
Case of Paroxysmal Auricular Flutter, with 1-1 Ventricular Response: Effects of Digitalis and Quinidine. G. A. Allan.—p. 93.
Case of Pyrexia of Unknown Origin Associated with Cutaneous Eruption. R. A. Currie.—p. 95.

Journal of Mental Science, London

73: 1-194 (Jan.) 1927

Cause and Prevention of Neuroses. A. Adler.—p. 1.
*Prognosis in Schizophrenia. A. E. Strecker and G. F. Willey.—p. 9.
*Chronic Epidemic Encephalitis. P. K. McCowan and J. S. Harris.—p. 40.
Mental Exhaustion and Paranoid States. R. Thompson.—p. 51.
Endocrine Therapy and Psychoses. C. B. Molony.—p. 64.
Prison Psychoses. H. T. P. Young.—p. 80.
Child Murder and Insanity. J. S. Hopwood.—p. 95.
Wassermann Reaction in Blood Serum of Male Admissions to Hanwell Mental Hospital. G. A. Lilly and E. L. Hopkins.—p. 108.
*Calcium Content of Serum in Mental Invalids. E. Armstrong and W. Hood.—p. 111.

Prognosis in Schizophrenia.—Thirty-eight cases diagnosed as dementia praecox, but terminating in recovery, were analyzed by Strecker and Willey from the standpoint of potential prognostic indications occurring either before or during the attack of mental disease. The chief considerations were race, history, both familial and personal, personality, prepsychotic somatic state, precipitating situation, onset, and the psychic and physical phenomena of the psychosis itself.

Chronic Epidemic Encephalitis.—McCowan and Harris assert that scopolamine (hyoscine) has undoubted, though temporary, value in the parkinsonism of chronic encephalitis. Its action is a specific one; its value is objectively demonstrable, among other methods, by its effect on the blood sugar curve, which is made to approximate the normal curve. Its prolonged use does not lead to tolerance or any deleterious effects. Though in the majority of cases the full benefit of scopolamine can be obtained only by hypodermic administration, there is no doubt that in many cases considerable benefit follows its oral exhibition. It is undoubtedly much superior to belladonna or stramonium in the treatment of encephalitic parkinsonism.

Calcium Content of Serum of Mental Invalids.—The blood serum of 101 patients was examined by Armstrong and Hood. They found that the calcium content of blood serum in mental cases lies within normal limits, and that a high or a low content is not diagnostic of any specific condition.

Lancet, London

1: 423-472 (Feb. 26) 1927

*Surgery of Spinal Cord and Its Membranes. D. Armour.—p. 423.
Cardiospasm: Four Cases. J. Morley.—p. 431.
*Case of Severe Anemia of Pregnancy Simulating Addison's Anemia. T. J. Hoskin and E. Ceiriog-Cadle.—p. 433.
*Four Cases of Anthrax Treated with Sclavo's Serum. R. H. Boggon.—p. 435.
Case of Meckel's Diverticulum. C. S. McEuen.—p. 436.
*Lymphosarcoma of Nasopharynx Treated with Radium and Roentgen Rays. H. A. Colwell.—p. 437.
Case of Rupture of Enlarged Malarial Spleen. J. MacQueen.—p. 437.

Surgery of Spinal Cord; Use of Iodized Oil.—Regarding the use of iodized oil in the diagnosis and localization of spinal cord compression, Armour insists that it should in no way usurp the place of careful and repeated systematic clinical examinations of the patient, especially with reference to a sensory level, combined with laboratory tests of the cerebrospinal fluid. Recourse to it as a labor saving device and a short cut to diagnosis and localization is strongly deprecated. It should be used only after a subarachnoid block has been first demonstrated by the combined cistern-lumbar puncture method introduced by Ayer. It should not be used unless the possible dangers and complications are outweighed by the more exact localization likely to be obtained. Finally, in properly selected cases, iodized oil is a definite aid in the study of spinal cord compression, which, if used intelligently, will increase definitely successful removal of spinal cord tumors at an earlier stage in the course of the disease, and thereby increase the percentage of cures and reduce the operative mortality.

Severe Pregnancy Anemia Simulating Addison's Anemia.—Hoskin and Ceiriog-Cadle record a case of severe anemia of the pernicious type associated with pregnancy. Following blood transfusion and the administration of dilute hydrochloric acid, the patient's general condition improved rapidly. The occurrence in this disease of severe anemia, high color index, and achlorhydria is said to associate it with Addison's anemia. The symptom of diarrhea with large pale stools, and the incidence of the disease in patients residing in hot climates, suggests an infection possibly of the same type as sprue. The predisposing factors are undoubtedly achlorhydria associated with general debility, prior to the onset of pregnancy.

Use of Sclavo's Serum in Anthrax.—The four cases of anthrax reported by Boggon are of interest, as they all were traced to the same source of infection—two elephants. All four men were employed in some connection with the animals. As the diagnosis in each of the cases was made early by the recognition of *Bacillus anthracis* in smears taken from the lesions, immediate serum treatment was undertaken; active surgery was not required. All the patients made uninterrupted recoveries with the exception of one who developed bronchopneumonia, following an attack of influenza. The method of treatment in all cases was subcutaneous injection into the loins or over the glutei of Sclavo's antianthrax serum.

Radiotherapy of Nasopharyngeal Lymphosarcoma.—Colwell's case seems worthy of record as one in which an extensive lymphosarcoma disappeared under radiation therapy, without operative procedure other than that necessary for the application of radium, and in which no recurrence has occurred during a period of more than six and a half years.

Royal Soc. of Trop. Med. & Hygiene Trans., London

20: 321-400 (Jan. 31) 1927

Tropical Neurasthenia. H. S. Stannus.—p. 327.
*Prickly Heat Etiology and Pathology. E. C. Smith.—p. 344.
*Is Bronchial Spirochetosis Distinct Clinical Entity? P. Manson-Bahr.—p. 352.
Short Hookworm Campaign in Pomeroon District, British Guiana. J. F. C. Haslam.—p. 354.
Colombian Relapsing Fever Simulating Acute Appendicitis. E. J. Pampana.—p. 357.
Malarial Fevers. IV. Complement Fixation Reaction. A. N. Kingsbury.—p. 359.
Thelazia Infection of Man and Mammals in China. E. C. Faust.—p. 365.
*Amebic Dysentery; Treatment. W. A. Young.—p. 370.
Exhibition of Stovarsol (Acetyloxyaminophenylarsinic Acid) in Treatment of Frambesia in Ashanti. P. S. Selwyn-Clarke.—p. 373.

Fungus as Cause of Prickly Heat.—A fungus showing yeastlike budding forms and branching mycelium has been demonstrated by Smith in the epidermal scales of persons affected with the condition known as prickly heat. Cultures of this fungus can be made from the scales which, when stained, appear as masses of budding yeastlike bodies (gram-positive). A few of the strains show short, scanty, mycelial elements. By inoculation of a culture on suitable soil (i. e., human skin), a lesion is obtained which is comparable to prickly heat in an aggravated form. The lesion produced shows a primary, vesiculopapular stage and a terminal desquamatory phase. A fungus, identical with that used for inoculation, can be demonstrated in the scales and obtained from them in culture. The fungus isolated from the experimentally produced lesion will, on reinoculation, give rise to a similar epidermal lesion. Sections of the experimental lesion show the presence of a yeastlike fungus in the horny epithelium, in the roofs of the vesicles or pustules, and in the superficial parts of the hair follicles. This fungus belongs apparently to the monilia group.

Bronchial Spirochetosis.—Manson-Bahr doubts the existence of bronchial spirochetosis. The demonstration of spirochetes in the sputum is without clinical significance, and its misinterpretation may lead to annoying, even serious, consequences.

Treatment of Amebic Dysentery.—It is suggested by Young that the administration of more than 1 grain (0.065 Gm.) of emetine daily for six days has an inhibitive effect on the production of what, for want of a better term, he has called the tissue-emetine-substance which kills *Endameba histolytica.* It is also suggested that better results will accrue by giving emetine every three or four days after the first 6 grains (0.4 Gm.), or better still, if a microscope is available, by administering 1 grain (0.065 Gm.) of emetine twelve hours before the multiplication of amebas is due.

Chinese Journal of Physiology, Peking

1: 1-96 (Jan.) 1927

Effect of Starvation and Refeeding on Intestinal Epithelium of Albino-Mouse. T. P. Sun.—p. 1.
Pharmacology of Chinese Aconite, T'sao-Wu-T'ou. H. P. Chu.—p. 7.
Bastard Anise Poisoning and Its Antidotal Measures. B. E. Read and P. C. Kiang.—p. 15.
*Anesthetic Mixtures of Ephedrine and Procaine with Epinephrine and Potassium Sulphate. B. E. Read and C. C. Lin.—p. 23.
Proteolytic Ferment of Hsiang-Kua, Cucumis Melo, Linn. (Cucurbitaceae). H. C. Hou and C. C. Chen.—p. 33.
*Method of Vessel Anastomosis for Viviperfusion, Cross Circulation and Transplantation. R. K. S. Lim.—p. 37.
*Secretion of Transplanted Stomach. R. K. S. Lim, C. T. Loo and A. C. Liu.—p. 51.
Method for Preparing Pure Ephedrine Hydrochloride from Ephedra Equisetina, Bge. C. T. Feng.—p. 63.
Method for Vividialysis. H. Necheles.—p. 69.
Denaturation of Proteins. II. Coagulation by Alcohol. H. Wu.—p. 81.
*Nutritive Value of Mung Bean, Phaseolus Aureus Roxb. E. Tso.—p. 89.

Anesthesia by Ephedrine, Epinephrine and Potassium Sulphate Mixture.—Read and Lin assert that a mixture of ephedrine with epinephrine and potassium sulphate can produce, by the wheal method, local anesthesia equal in intensity to that obtained by a mixture of similar proportions and strengths of procaine hydrochloride, epinephrine and potassium sulphate. The nature of this ephedrine anesthesia is not apparent, for simple solutions of this alkaloid do not produce wheal anesthesia. The synergism produced with epinephrine and potassium sulphate suggests a definite chemotherapeutic relationship between these three compounds. It is suggested that for dental surgery and ophthalmologic work, this mixture may prove of service.

Method of Vessel Anastomosis.—The method described by Lim depends on the use of aluminum couplers in bringing broad surfaces of the intima into contact in the union of blood vessels. The couplers differ considerably from the magnesium rings of Payr (4) and Jeger (2), but are not unlike the pattern that was devised by Lespinasse and Eisenhardt.

Secretion of Transplanted Stomach.—The results obtained by Lim et al. confirm the work of Ivy and Farrel, and also establish their conclusion that it affords a proof of a humoral mechanism in the causation of gastric secretion.

Nutritive Value of Mung Bean.—The mung bean constitutes an important part of the Chinese dietary. It is used in the form of flour, sprouts, "milk," protein curds, starchy vermicelli, or whole beans cooked in cereals, particularly rice. Feeding experiments made by Tso on white rats have shown that with the intake at about 18 per cent of the ration, and representing not less than 20 per cent of the total calories, the proteins of the Chinese mung bean are biologically complete. The mineral content of the mung bean is deficient chiefly in calcium and sodium chloride. The mung beans constituting 60 per cent of the diet furnish a moderate amount of vitamin A. At a 30 per cent level they are distinctly deficient in this vitamin. The mung beans are a good source of vitamin B. At the level of 30 per cent of the food mixture, they furnish sufficient vitamin B for the normal nutrition of rats.

Japanese Journal of Pharmacology, Kyoto

4. 1 15 (Jan 20) 1927

Effect of Some Colloids on Development of Edema N Kitamura —p 1.
Combined Action of Cocaine Group and Potassium in Local Anesthesia. J Kawabata —p 1
Combined Action of Cocaine, Ammonia, Calcium, Strontium, Barium and Magnesium J Kawabata —p 2
New Method of Study of Vessel Reaction A Ochiai —p 3
Relationship Between Effect of Epinephrine and Site of Application M Ogawa —p 3
Pharmacologic Reactions of Strips of Aorta of Rabbits N Kitamura. —p 4
Detoxication Action of Liver Against Cocaine K Kusaka —p 5
Action of Cocaine on Liver and Thigh Vessels K Kusaka —p 5
Experimental Studies on Intravenous Infusion of Ringer Locke s Solution Containing Soluble Starch S Hori —p 6
Experimental Studies on Subcutaneous Infusion of Hypertonic and Hypotonic Salt Solutions S Uyeda —p 7
Pharmacology of Aristolochins K Ryo —p 8
Pharmacology of Toad Poisons I Poison in Liver K Ryo —p 8
Experimental Detoxication with Antagonists S Uchida —p 9
Methemoglobin Formation I Effect of Gases Acids and Alkalis on Methemoglobin Formation by Pharmacals C Suzuki —p 10
Id II Methemoglobin Formation by Pharmacals in Vivo, Effect of Gases Acids and Alkalis C Suzuki —p 10
Physical and Pharmacologic Effects on Action of Curare I. Temperature S Hori —p 11
Id II Effect of Acids and Alkalies S Hori —p 12
Pharmacologic Action of β Indolethylamin S Hasegawa —p 12
Effect of Narcotics on Cramps of Toxic Origin E Kobayashi —p 14
Effect of Pharmacals on Conduction Between Auricle and Ventricle G Morita —p 14

Oriental Journal of Diseases of Infants, Kyoto

2 113 124 (Jan) 1927

Vitamin Content (Yeast Growth Promoting Stimulus) of Mother s Milk Whose Infants are Suffering from Infant Beriberi F Suzuki —p 113
Subvestibular Temperature of Japanese Children T Fushiki —p 118
Osmotic Pressure of Cerebrospinal Fluid J Kaneko —p 119
*Effect of Ultraviolet Rays on Rabies Virus K Takaya —p 121
Bacteriologic Studies on Diplococcus Pneumonia of Rabbits Y Uyetani and R Sasaki —p 122
*Diabetes in Child Treated with Insulin S Miyake —p 123

Effect of Ultraviolet Rays on Rabies Virus —On the basis of his experiments Takaya asserts that the ultraviolet ray does not have any effect on the virulence of rabies virus

Diabetes in Child Treated with Insulin —Miyake had under his care for one year a boy, aged 8 years and 11 months, who suffered from diabetes Repeated injections of insulin had a most salutary effect Small doses at long intervals are suggested as being preferable to large doses at short intervals

Tohoku Journal of Experimental Medicine, Sendai, Japan

8 237 354 (Feb 9) 1927

Simultaneous Determination of Blood Sugar Content and Gas Content and Alkalinity of Arterial Blood During Carbon Monoxide Poisoning S Mikami —p 237
Effect of Insulin on Carbon Dioxide Content in Arterial Blood and Blood Sugar Level in Rabbits Poisoned by Carbon Monoxide S Mikami —p 278
Studies on Eel Serum I Pharmacology Y Mitomo —p 284
Id II Serology Y Mitomo —p 312
Id III Hemolytic Action of Brain Y Mitomo —p 324
Heterogenetic Antigens and Antibodies, Horse s Urine M Yanagibashi —p 327
*Detoxicating Hormone of Liver (Yakriton) III A Sato and H Sakurada —p 347
*Id IV Estimation of Rabbit Ammonia Unit A Sato —p 351

Detoxicating Hormone of Liver.—A new method of testing the detoxicating liver function is described by Sato and Sakurada, which is to be applied to animals alone for the time being The test classifies rabbits into more than six classes The detoxicating experiments should be done with animals of equal detoxicating liver function

Ammonia Unit of Liver Hormone.—The actual method of estimating the ammonia unit of the liver hormone with the use of animals of known detoxicating activity of the liver is described by Sato Ten units of Yakriton (ten rabbit-ammonia-units) per kilogram of body weight will protect a rabbit of the detoxicating liver power of class b from any toxic effect of a fresh 3 per cent ammonium chloride solution, administered intraperitoneally five minutes later than the subcutaneous injection of Yakriton

Bruxelles-Médical, Brussels

7: 173 207 (Dec 5) 1926

Lateral Intracapsular Extraction of Cataract Van Lint —p 173.
Surgery of the Spleen R Alessandri —p 177
*Physiology of Human Amnion H Keiffer —p 180.

Physiology of Human Amnion.—Keiffer reports the details of his researches on the amnion in mammals This membrane secretes the amniotic fluid, protoplasmic enclaves, glycerides and cholesterides The latter agglutinate desquamated cells of the fetal epidermis, thus forming the vernix caseosa It appears that the vernix, which is gradually resorbed by the fetal skin, serves for nutrition of the embryo The author draws the conclusion that a substance analogous to the vernix may prove to be beneficial in the feeding of premature and debilitated infants Tests in this field are now being made with wool fat

7: 208 239 (Dec 12) 1926

Vegetative Pyodermitis J Peyri —p 208
*Magnesium Sulphate in Treatment of Eclampsia J L Wodon —p 217.

Magnesium Sulphate in Treatment of Eclampsia —Wodon obtained good results from magnesium sulphate in treatment of eclampsia He advocates Lee Dorsett's method of intramuscular injections From 3 5 to 4 Gm of the salt, in a 10 to 50 per cent solution, is given in one injection The injections are repeated according to the gravity of the case By-effects have never been observed Convulsions yielded to one injection, micturition increased, edemas disappeared rapidly The uterine contractions remained unaffected The treatment was without effect in uremic eclampsia The action of intravenous injections is different Here the mechanism of ions is an important factor The magnesium ions take the place of calcium ions This results in liberation of calcium in the blood Consequently hypocalcemia, the probable cause of convulsions, is relieved

Comptes Rendus de la Société de Biologie, Paris

96: 73 148 (Jan 21) 1927 Partial Index

*Sugar in Intraperitoneal Exudates X Chahovitch and V Arnovljevitch —p 75
*Action of Ephedrine on Blood Pressure A Gradinesco and I Marcu —p 77
Experimental Scarlet Fever in Rabbits P Rosen et al —p 83
*Intake of Food in Children and Adults C Richet, Jr —p 84
*Carbohydrate Metabolism in Neoplastic Tissue A Blanchetiere —p 94
*Experimental Nephritis from Uranium G Auriat —p 111
*Action of Roentgen Rays on Coagulation, Glycemia and Calcemia E Zunz and J La Barre —p 125
*Action of Roentgen Rays on Epinephrinemia E Zunz and J La Barre —p 126
*Regeneration of Blood Following Venesection A Van den Eeckhout and J Lahaye —p 128
*Filtrable Forms of Avian Tubercle Bacillus F De Potter —p 138
*Cytozymes and Blood Coagulation J Bordet et al —p 141

Sugar in Intraperitoneal Exudates Induced with Albuminoids —Chahovitch and Arnovljevitch injected into the peritoneum of rabbits bouillon, peptone, casein or ovalbumin The resulting intraperitoneal exudate contained sugar, the amount of which increased gradually up to the second hour after the injection The exudate disappeared five or six hours later Researches with the object of establishing the origin of the sugar and the mechanism of its accumulation in the exudate are in progress

Action of Ephedrine on Blood Pressure.—In Gradinesco and Marcu's experiments, dogs were injected intravenously with ephedrine after which both suprarenals were removed Suppression of epinephrine secretion interfered only partly with the stimulating influence of ephedrine on blood pressure Evidently the action of ephedrine is not connected exclusively with the secretion of epinephrine

Comparative Intake of Food in Children and Adults.—Richet's study was conducted on twelve children, aged from 4 to 15, belonging to various families He determined the total weight of the food, its calorigenic power and the amount of proteins included in it He concludes that, proportional to the body weight, a child eats twice as much as an adult.

Metabolism of Carbohydrates in Neoplastic Tissue —Blanchetiere determined the glycolysis in anaerobic and aerobic cultures of neoplastic tissues by estimating their lactic acid content. In both cultures, glycolysis was greatly increased as compared with that in normal tissues. Nevertheless the amount of lactic acid did not correspond to that of the sugar that had disappeared. Apparently, in neoplastic tissues a part of the carbohydrates is transformed into other products, the nature of which is yet unknown.

Pathologic Anatomy of Nephritis Induced with Uranium.—A series of rabbits were injected with uranium. They developed acute or chronic nephritis without edema. Another series were given a sodium salt during the injections. Nephritis with edema occurred. Examination of the kidneys showed lesions of the epithelium in Henle's loops, especially in the ascending branches. Newly formed connective tissue was found in the kidneys of animals exposed to prolonged uranium poisoning. Various anatomicopathologic forms of nephritis could thus be induced, comparable to a certain extent to those in man. The experiments also showed that renal lesion is a necessary factor, but not the only one in the development of edema.

Influence of Roentgen Rays on Coagulation, Glycemia and Calcemia.—Zunz and La Barre examined the blood of rabbits before and after exposure of the splenic region to roentgen rays. It appeared that penetrating rays, which accelerate coagulation, also increase the content of calcium and of glucose in the blood. This is accompanied by rise in blood pressure. Further researches indicated that doses of roentgen rays enhancing coagulation cause an abnormally large secretion of epinephrine into the blood.

Regeneration of Blood After Venesection.—Van den Eeckhout and Lahaye observed that successive venesections were followed by a notable increase of red blood corpuscles in horses. Thus, after removal of 10 liters of blood, which represents almost half of the total blood of the animal, the number of the red blood corpuscles decreased only one seventh. The authors query whether the spleen alone is responsible for the polycythemia.

Filtrable Forms of Avian Tubercle Bacilli.—Fowls were inoculated with filtrates of avian tubercle bacilli of various concentrations. A series were injected with pure cultures; they died three months after the injection. On necropsy typical lesions of generalized tuberculosis were found. Another series were injected with filtered emulsions; they did not develop any tuberculous lesions. It is presumed that the pathogenic property of the filtrates is attributable to special forms of avian tubercle bacilli, analogous to those in filtrates of human or bovine bacilli.

Cytozymes and Coagulation of the Blood.—Bordet, Renaux and Bordet conclude from their experiments that the coagulating property of cytozymes is the same in various animals. Consequently one may effectively replace another in regard to coagulation. Their difference consists in their serologic properties, since each is neutralized by a specific immune serum.

Presse Médicale, Paris

35: 241-256 (Feb. 23) 1927

*Action of Mineral Waters on Enzymes. M. Loeper et al.—p. 241.
Primary Syphilitic Jaundice. P. Nicaud.—p. 244.
Treatment of Tuberculosis with Methyl Extracts of Tubercle Bacilli. L. Negre and A. Boquet.—p. 245.

The Zymosthenic Property of Mineral Waters.—Loeper, Mougeot and Aubertot's researches were made on mineral waters from various springs in France. Waters containing sodium bicarbonate, calcium or both were found to stimulate considerably the action of amylases originating in the salivary glands, liver or pancreas. This zymosthenic property is lacking in artificial solutions of sodium bicarbonate. The zymosthenic property does not depend on the radioactivity or on the hydrogen-ion concentration of the water. It is due to the metallic electrolytes in it. The role of bivalent metals in the zymosthenic action is important; that of heavy metals is accessory. Calcium appears to be especially active in this regard. The zymosthenic property of mineral waters explains their efficiency in nutritional disorders.

35: 257-272 (Feb. 26) 1927

*New Sign in Diseases of Pyramidal Tract. J. A. Sicard.—p. 257.
Errors and Perils of Freud's Theory. R. Cruchet.—p. 257.
*Consequences of Excessive Leukocytosis. A. Guieysse-Pellissier.—p. 259.
"Synthalin" in Treatment of Diabetes. M. Wolf.—p. 260.
Tuberculosis and Cancer from the Social Standpoint. E. Arnould.—p. 267.

Method for Detecting Reflexes of Pyramidal Origin.—Sicard suggests a new technic for obtaining reflexes in the lower limbs, characteristic for diseases of the pyramidal tract. While the patient's leg is held firmly with the hand, his foot is moved from side to side, never forward or backward. The movements must be brief and rapid, repeated for about thirty seconds. The reflex is more evident when the leg and the thigh are flexed. The sign is positive if there is extension of the great toe alone or of all the toes; extension of the great toe and flexion of other toes; backward flexion of the foot alone or associated flexion of the foot and of the leg. The sign was positive in several cases of spasmodic paraplegia of organic origin in which Babinski's reflex and that of Pierre Marie and Foix was negative. The sign was negative in healthy persons and in those with diseases of parapyramidal origin.

Consequences of Excessive Leukocytosis.—Guieysse-Pellissier emphasizes that in acute or chronic inflammations death can frequently be ascribed to excessive leukocytosis. Dogs were exposed to inhalations of arsin. Necropsy revealed only a few histologic lesions in the lungs. Nevertheless the lungs were filled with pus. Arsin causes a rapid afflux of leukocytes; their number is too great for the space in which they are contained. They are unable to obtain sufficient nutriment and die. Staphylococci and streptococci sometimes provoke an afflux of leukocytes exceeding that required for the defense of the organism. A large number of leukocytes is usual in certain persons of lymphatic constitution. Attempts should be made to discover measures for the regulation of leukocytosis in infectious diseases, as well as for the prevention of hypertrophy of the lymphoid organs.

Schweizerische medizinische Wochenschrift, Basel

57: 145-168 (Feb. 12) 1927

*Nervous Complications of Chickenpox, Smallpox and Vaccinia. E. Glanzmann.—p. 145.
"Neo Unitarism." Tieche.—p. 154.
Percutaneous Gonococcus Infection of an Infant. A. Deuber.—p. 156.
Macrostoma. E. Forster.—p. 164.

Nervous Complications of Chickenpox, Smallpox and Vaccinia.—Glanzmann reviews the literature and his own cases. Serous meningitis, encephalitis and myelitis are the most important complications. They appear—at least in chickenpox and vaccinia—between the fifth and fifteenth day of the disease. He believes that the etiologic agents of the three diseases are related.

Pediatria, Naples

35: 169-224 (Feb. 15) 1927

*Blood Sugar in Typhoid. S. Barberi and A. Baudo.—p. 169.
Malignant Lymphogranuloma. G. Castorina.—p. 179.
Cerebral Complications of Whooping Cough. A. Berardi.—p. 188.
Technic of Blood Examination in Children. R. Vaglio.—p. 195.

Blood Sugar in Typhoid.—Barberi and Baudo found a normal concentration of blood sugar in children with typhoid. Injections of typhoid vaccine were followed by a very slight lowering and subsequent slight increase in blood sugar.

Policlinico, Rome

34: 235-270 (Feb. 14) 1927

*Treatment of Peritonitis with Colloidal Silver. S. Solieri.—p. 235.
Poisoning from Sardines. M. Pergola.—p. 237.

Treatment of Peritonitis with Colloidal Silver.—In 118 laparotomies for septic conditions, Solieri injected from 5 to 30 cc. of a solution of colloidal silver (as used for intravenous injections) into the peritoneal cavity. When used as a preventive (no free pus in the cavity) the mortality was 4 per cent among fifty cases. In diffuse purulent peritonitis the mortality was 20 per cent.

34: 53-104 (Feb. 15) 1927. Surgical Section

- *Splenectomy in Malaria. L. Dominici.—p. 53.
- Coxa Valga and Osteochondritis. E. Ettorre.—p. 58.
- Sarcoma of Maxillary Sinus. L. Gobbi.—p. 68.
- *Vesicorenal Reflux. G. Millul.—p. 74.
- Aneurysm of Hepatic Artery. O. Tenani.—p. 92.

Splenectomy in Malaria.—Dominici removed the enlarged spleen (2,700 Gm.) in a patient with chronic malaria, who had developed considerable anemia, slight enlargement of the liver and slight jaundice (indirect reaction for bilirubin in the blood). The patient recovered completely.

Vesicorenal Reflux.—Millul believes that tuberculosis of the kidney is an important predisposing and determining cause of ureteral reflux.

Riforma Medica, Naples

43: 145-168 (Feb. 14) 1927

- Adenoids. A. D. Cioppa.—p. 145.
- Influenzal Bronchopneumonia and Thrombo-Arteritis of the Aorta. R. Menasci.—p. 149.
- *Anaphylactogenic Potency of Asthmogenic Proteins. V. Pennati and A. Tolomei.—p. 151.
- Vomiting in Infants. R. Fuà.—p. 153.
- Acute Ulcers of the Vulva. A. V. Ferrari.—p. 164.

Anaphylactogenic Potency of Asthmogenic Proteins.—Pennati and Tolomei did not obtain the Arthus phenomenon nor an anaphylactic shock in guinea-pigs from repeated injections of extracts of pollen and horse dander. They point out that these results do not disprove the probability of the anaphylactic nature of asthma.

Archives de la Sociedad Médica de Valparaíso

1: 119-206 (Nov. and Dec.) 1926. Partial Index

- Value of the Wassermann Test. G. Munnich.—p. 119.
- Heart with Two Cavities. O. Wildner.—p. 125.
- Endocarditis Lenta. C. Schwarzenberg.—p. 127.
- Multiple Fecal Fistulas of the Cecum. H. Grove et al.—p. 130.
- *Extragenital Chancroid. H. Vera.—p. 132.

Extragenital Chancroid.—In a patient, 63 years old, a persistent lesion of the leg had been diagnosed as furunculosis and ulcer. As the picture resembled chancroid, Vera examined the pus and found an abundance of typical Ducrey-Unna bacilli. Under treatment for chancroid immediate improvement took place. Instruments or the hands may have caused an accidental infection.

Boletín del Instituto de Med. Exper., Buenos Aires

2: 771-1096 (Nov.) 1926. Partial Index

- Action of Roentgen Rays on Cultures of Tumor Tissue in Vitro. A. H. Roffo.—p. 771.
- Erythroplasia of the Glans. A. H. Roffo.—p. 787.
- Influence of Autolysates on Tissue Growth in Vitro. A. H. Roffo. —p. 797.
- Toxic Action of Chicken Tumors and Organs. A. H. Roffo and R. L. Ramírez.—p. 877.
- Skin and Gland Blastomycosis. M. Aberastury.—p. 885.
- Biologic Action of Roentgen Rays. N. Capizzano.—p. 922.
- Radium Emanation in Water. E. Jonquières.—p. 929.
- *Surgery in Cancer of the Penis. A. Astraldi.—p. 933.
- *Blood Changes Caused by Rubidium. A. H. Roffo and H. De Giorgi.—p. 955.
- Toxicity of Tumors in Different Structures. A. H. Roffo and E. Garcia Velloso.—p. 973.
- *Roffo's Test in Cancer of the Genital Organs. F. Carranza.—p. 984.
- Experimental Carcinoma of the Spleen. A. H. Roffo and A. Encina.—p. 1009.

Surgical Treatment of Cancer of the Penis.—While gland enlargement is rather common in penial cancer, Astraldi prefers not to touch the glands in partial or total amputation. His series includes twenty-two cases. In the only case in which he attempted gland dissection, recurrence took place eight years later. Advocates of gland removal in cancer of the penis fail to apply the same principle to superficial growths on the face. In the Institute of Experimental Medicine no time is wasted on radiotherapy in such cases, but surgery is resorted to at once.

Changes in the Blood Caused by Rubidium.—Roffo and De Giorgi studied the effects of rubidium on thirty-three patients with different types of cancer. Both rubidium chloride and rubidium seleniate caused a slight decrease in the p_H of the blood. The superficial blood pressure also became lower. The action was proportional to the dose used.

Roffo's Test in Cancer of the Genital Organs.—Roffo's method proved positive in 80 per cent of 117 cases tested by Carranza. While the reaction is not specific, it may confirm the diagnosis in doubtful cases.

Lisboa Médica, Lisbon

3: 445-532 (Oct.) 1926

- *Treatment of Bone Sarcoma. F. Gentil.—p. 445.
- Generalized Osteitis Fibrosa in Adolescents. H. Parreira and L. de Castro Freire.—p. 465.

Conservative Treatment of Bone Sarcoma.—In his first case of bone sarcoma twenty-four years ago, Gentil contented himself with removing the seat of the tumor, the head of the left humerus. The patient remained well for more than five years. Her son, a child less than 2 years old, had a large abdominal sarcoma. In another case of tibial sarcoma, after resecting the bone, a pedunculated bone graft was inserted. The patient has remained well for twenty years. Among 7,083 admissions to one of the Lisbon surgical clinics, 1,508 were for malignant tumors; only twenty-eight of these were bone sarcomas. Including the first two cases, the total number reaches thirty, with eight cures, i. e., 26.6 per cent. If the tumor is separated from the soft parts by periosteum, excision may be tried, followed by roentgen rays or radium and a bone graft. The benignity of giant cell tumor, which made up part of this series, permits almost any measure to be tried. The roentgen rays not only locate the tumor, but show whether it belongs to the giant cell variety. In anatomically inoperable sarcomas as well as those composed of small round or spindle cells, the treatment should be radium followed, where possible, by surgery.

Revista Médica del Uruguay, Montevideo

30: 1-57 (Jan.) 1927

- Oscillating Polycythemia. J. B. Morelli and J. N. Quagliotti.—p. 1.
- *Pneumonia in Children. L. Morquio.—p. 8.
- Physical Therapy in Pediatrics. V. Escardó y Anaya.—p. 30.

Pneumonia in Children.—In the Montevideo foundling asylum, among over 20,000 infants, Morquio found only three cases of pneumonia in children from 25 days to 9 months old, and only seven cases in children less than 2 years of age. Among 591 cases of pneumonia in children (1916-1925), the age varied from 1 year (three) to 14 or 15 years (twenty-six), but the majority were from 6 to 9 years old. Boys predominated. The right lung was involved as follows: apex, 154; middle, eighty-five; base, twenty times; the left lung, apex, forty-eight; base, 210 times. In twenty-six cases the pneumonia was double. The stay in the hospital averaged eight days; minimum, one day (two patients); maximum, more than twenty days (thirty-eight). Complications, such as congestion, bronchopneumonia, mumps, otitis or pleurisy, developed in 146 cases. Two cases that started as caseous pneumonia proved to be tuberculosis. Both patients died. In other cases the pneumonia was superposed on gangliopulmonary tuberculosis. Pneumonia may either leave the tuberculous process alone or cause a flare-up or aggravation. The death rate was 3.3 per cent. Treatment must be as simple as possible, discarding everything unnecessary and troublesome. The result of vaccines and serums is still problematical.

Revista de la Soc. de Med. Interna, etc., Buenos Aires

2: 547-710 (Dec.) 1926

- Iodine in the Treatment of Exophthalmic Goiter. M. R. Castex and M. Schteingart.—p. 549.
- The Heart in Hyperthyroidism. P. Escudero and F. Puchulú.—p. 557.
- Remineralization in Tuberculosis. C. Robertson Lavalle.—p. 583.
- Syphiloma of the Liver and Obliteration of the Vena Cava. J. J. Spangenberg and L. Munist.—p. 588.
- Pseudocavitary Syndrome from Deviation of the Trachea in Chronic Pulmonary Tuberculosis. J. Palacio and M. Calvo.—p. 601.
- Weber's Alternating Hemiplegia with Hemianopia. C. Bonorino Udaondo and C. Pinedo.—p. 610.
- Castellani's Bronchial Spirochetosis. J. J. Vitón et al.--p. 617.
- *Histamine in the Study of Gastric Secretion. C. Bonorino Udaondo and L. V. Sanguinetti.—p. 628.

Abscess of the Liver G Segura —p 636
Amebic Infection of the Lung R Novaro and J Bacigalupo —p 653
Permanent Subcutaneous Drainage in Tuberculous Meningitis M R Castex et al —p 661
*Thoracic Bandaging After Labor in Tuberculosis A A Raimondi et al —p 672
Diagnosis of Tuberculosis of the Eye J Lijo Pavia —p 695

Histamine in the Study of Gastric Secretion —The use of histamine, according to Bonorino and Sanguinetti, offers advantages in the study of the secretory function of the stomach Its disadvantage lies in its congestive tendency Hence it should not be used in cases of gastric hemorrhage The series included eighteen normal subjects and six patients with ulcer or cancer

Thoracic Bandaging After Labor in Tuberculosis.—Among eighty tuberculous patients in whom Raimondi and his associates tried thoracic compression after labor, sixty five were benefited The other fifteen presented tuberculosis with laryngeal complications on admission, and the bandages did not prevent puerperal fever and death In some cases Sergent's small double pneumothorax may be tried immediately after labor, but in others this is not feasible

Archiv fur Dermatologie und Syphilis, Berlin

152. 273 528 (Dec 3) 1926

*Circumscribed Connective Tissue Skin Changes O Sachs —p 273
*Experiments in Idiosyncratic Hypersensitiveness B Bloch and A Steiner Wourlisch —p 283
*Respiratory Metabolism in Skin Diseases E Urbach —p 304
Congenital Lymphangioma M Wortberg —p 329
Scleroderma and Calcification of the Skin J Pernet —p 337
Treatment of Lupus Erythematodes by Ionthophoresis S E Sladkowitsch —p 353
Ordinary Fungi and the Human Skin U Niethe —p 358
Zosteriform Xanthoma C Kreibich —p 365
Lentigines H W Siemens —p 372
*Biochemistry of Tuberculosis of the Skin N Melczer —p 381
Tumefaction of the Skin of the Frog A M Memmesheimer —p 385.
*Experimental Connective Tissue Tumors N Melczer —p 398
Keratoma of Hand and Foot A Brauer —p 404
Erythrodermia Leucaemica E Pick —p 415
Skin Pigment and Blood Tyrosin D Steiger Kazal — p 420
Dermatomycosis G Falchi —p 427
The Blood Picture in Leprosy P Bargehr —p 462
Pathogenesis of Skin Tuberculosis E Bruusgaard —pp 465 and 482
Verruca Senilis und Keratoma Senile W Freudenthal —p 505

Connective Tissue Nevi —Sachs describes two cases with illustrations and photomicrographs in colors The lesions belonged to the hyperplastic variety and consisted of connective tissue and smooth muscle fibers The most important changes were in the papillary layer

The Question of Idiosyncrasy —Bloch and Steiner-Wourlisch studied the idiosyncrasy problem on the human subject with preparations of the leaf of the primrose With preparations containing the antigen in strong concentration, it was possible to sensitize all the persons tested (twelve) With weaker concentrations about 40 per cent (ten out of twenty-four) were sensitized The sensitization obtained proved lasting Clinically and histologically it was similar to "spontaneous" idiosyncrasy

Basal Metabolism in Skin Diseases —The basal metabolic rate was investigated in 235 cases of various dermatoses It was found to be raised in hyperhidrosis (frequently), in thirteen of thirty-five cases of psoriasis, in 33 per cent of cases of acne vulgaris (it was lowered in 17 per cent), in 50 per cent of all cases on a vasoneurotic basis (it was lowered in 16 per cent), in one of six cases of scleroderma (in two it was lowered), and in 40 per cent of cases of pruritus associated with the menopause It was normal in practically all cases of rosacea, of atrophic acrodermatitis and of alopecia areata

Phenolase and Diastase Content of Tuberculosis of the Skin —Melczer found that the tissue of lupus and of tuberculosis verrucosa cutis contains about the same amount of diastase as does normal skin, but about eight times more phenolase than the normally pigmented skin of the leg

Experimental Production of Connective Tissue Tumors —Malignant connective tissue tumors developed in about 17 per cent of the albino rats that Melczer treated with tar Histologically the tumors corresponded to alveolar sarcoma Autotransplantation and homeotransplantation were successful From 5 to 7 per cent of the tumors caused pulmonary metastases, which were likewise homeotransplantable The virulence of the transplants diminished after from two to five passages, so that, finally, spontaneous healing took place

Archiv fur exp. Pathologie und Pharmak., Leipzig

120 1 128 (Jan) 1927

*Metamorphosis of Axolotl Fed on Thyroid A Nagel —p 1
*Influence of Liver Extirpation on Cholesterol Metabolism E Enderlen et al —p 16
Action of Mixed Drugs S Loewe et al —p 25
Idem S Loewe —p 41
The Hormone Content of Corpus Luteum Preparations S Loewe and I Lange —p 48
Active Substances in Urginea Burkei J M Watt —p 65
Electric Stimulation of the Surviving Intestine of the Rabbit F P Leusden and O Riesser —p 77
Local Anesthetics and Antipyretics of the Thiophen Series H Steidle —p 100
*Inhibitory Effect of Pituitary Preparations on Exudation L T Poulsson —p 120
Detoxication of Pentamethylentetrazol in the Liver C Ridder —p 126

Metamorphosis of Axolotl Fed with Thyroid —On axolotles (amblyostoma) Nagel studied the influence of thyroid preparations on carbon dioxide production, the relation between body weight and water metabolism and skeletal changes as seen in the roentgenogram The metabolism increased by as much as from 35 to 40 per cent The body weight decreased and there were skeletal changes in the head

Extirpation of the Liver and Cholesterol Metabolism —In experiments on dogs, Enderlen, Thannhauser and Jenke found that extirpation of the liver was followed by increase in the total cholesterol content of the organism, especially in the cholesterol esters in the blood

Inhibiting Action of Pituitary Extracts on Exudation —In experiments on rabbits Poulsson found that pituitary preparations had a marked inhibitory action on mustard oil chemosis or edema due to paraphenylendiamin The result depended on the contracting effect of the preparation on the capillaries

Archiv fur klinische Chirurgie, Berlin

143: 533 808 (Dec 29) 1926

*Treatment of General Peritonitis of Appendiceal Origin K Reschke —p 533
Mortality of Operation for Subtentorial Tumors W Lehmann —p 552
*Experiments in Innervation of Vessels G Magnus —p 574
Gold Treatment of Surgical Tuberculosis H Achelis —p 582
Tumors of the Parotid F Stohr and E Risak —p 609
*Experiments in Prevention of Postoperative Peptic Ulcer A Winkelbauer —p 649
*Effect of Roentgen Rays on Acid Base Equilibrium G von Pannewitz —p 697
Tumors of the Mesentery in the Pathogenesis of Occlusion of the Small Intestine W J Mirer —p 710
Hepatobronchial Fistulas of Echinococcus Origin B Ljubarsky —p 718
Clinical Study of Goiter Heart E Gmelin —p 726
Pseudarthrosis and Muscle A Buresch —p 739
Carcinoma and Carcinoid of the Appendix H Vollmar —p 763
Cholecystography H Friedrich and E Pflaumer —p 769
Thrombosis of Renal Vein Simulating Tumor P Biernath —p 802

Treatment of General Peritonitis Originating in the Appendix —Reschke reviews the results of treatment of late cases of general peritonitis of appendicitic origin in the Greifswald university clinic since 1903 Of sixty-five patients brought in on the fourth day, or later, fifty were operated on, with a mortality of 92 per cent, fifteen were treated conservatively, with a mortality of 53 per cent Of patients brought in on the third day, the mortality was more nearly equal, 48 and 50 per cent, respectively, for those given surgical treatment and those given conservative treatment In all cases, so far as could be judged, the process had extended over the entire abdominal cavity

Experiments in Innervation of Vessels.—In a region excluded from the circulation by application of an Esmarch bandage, the capillaries contract in response to mechanical stimulation Magnus endeavored to discover on what path this reflex could be interrupted He found that the reflex was inhibited by experimentally induced local anesthesia and by old, sensory paralysis, but not by periarterial sympathectomy The arc, therefore, does not run through the plexus surrounding the artery, and the experiments fail to give a theoretic support to Leriche's method.

Prevention of Postoperative Peptic Ulcer.—From experiments on dogs Winkelbauer states that postoperative jejunal ulcers cannot be produced by mere acidification of the more distal segments of the intestine. The segment of duodenum below Vater's papilla is more resistant to ulcer formation than the upper portion, and if it is used in the anastomosis ulcer is less likely to result. Ulcers can be avoided, even after experimental operations that regularly produce them, if the musculature of the intestinal wall is removed, as Kreidl proposed.

Effect of Roentgen Irradiation on Acid-Base Equilibrium.—The reaction presents two phases, the first acidotic, the second alkalotic. After irradiation of the stomach, the second phase is most prominent. After irradiation of the liver, the first phase is exaggerated and the second does not take place. Since roentgen sickness occurs always during the alkalotic phase, it is absent or slight after irradiation of the liver. The acidotic phase is the direct result of the irradiation, while the alkalotic phase is brought about by stimulation of the vagus by decomposition products. Accordingly, a causal treatment or prophylaxis of roentgen sickness would be based on tranquilizing the vagus or stimulating the sympathetic. Good results have been achieved with lobelin. In view of the acidosis (without a subsequent alkalotic phase) that follows irradiation of the liver, it appears unwise to treat that organ with roentgen rays within a few days before ether or chloroform anesthesia.

Archiv für Ophthalmologie, Berlin

118: 1-194 (Jan. 12) 1927

*Blood Reaction in Glaucoma. H. Schmelzer —p. 1.
Congenital Hydrophthalmus. P. A. Jaensch.—p. 21.
Nystagmus. Ohm.—p 103.
Comparative Determinations of Blood Pressure in Vessels of the Eye. M. Baurmann.—p. 118.
*Origin of Xanthosis of the Eyeball. W. Rohrschneider.—p. 131.
Argyrosis of the Cornea. B. Larsen.—p. 145
Anomaly of the Skin with Lipodermoid of the Conjunctival Bulb. H. W. Kranz.—p. 167.
Roentgen-Ray Localization in the Eyeball. W. Comberg.—p. 175.

Blood Reaction in Patients Suffering from Glaucoma.—On determining the p_H and carbon dioxide capacity of thirty-nine samples of blood plasma from thirty-four patients with chronic and from three with acute glaucoma, Schmelzer did not find any relation between the blood reaction and glaucoma.

Origination of Xanthosis of the Eyeball.—Rohrschneider injected streptococci suspended in physiologic salt solution into the anterior chamber of the left eye of rabbits, after removal of the aqueous humor. Yellow discoloration developed in the anterior part of the eyeball. Microscopic examination of sections of the eye revealed lipoid deposits, containing cholesterol esters. The fatty degeneration of the eyeball is not considered an infiltrative process, but should be explained on the basis of local intraocular processes. The lipoids were probably produced by fatty decomposition of infectious exudates. The microscopic and macroscopic features of the pathologic process in the experiment closely resembled the changes in the human eye known as xanthosis of the eyeball.

Archiv f. Schiffs- u. Tropen-Hygiene, etc., Leipzig

31: 1-52 (Jan.) 1927

*Syphilis in the Dutch East Indies. E. H. Hermans.—p. 2.
The Diseases of Ecuador. A. J. Valenzuela.—p. 13.
*Leprosy in Palestine. T. Canaan.—p. 20.
Leishmaniasis in Samarkand. A. S. Artamonoff.—p. 32.
Piroplasmosis in Monkeys. W. Kikuth.—p. 37.
Elephantiasis, Uncinariasis and Syphilitic Ulcers in Santo Domingo. C. T. Georg.—p. 41.
Ornithodorus in the Auditory Meatus. O. Beselin.—p. 44.
Ornithodorus in Man in South Africa. J. N. W. Loubser.—p. 45.

Syphilis in the Dutch East Indies.—Hermans' studies indicate that syphilis in the Javanese runs a more favorable course than in Europeans. The skin and the organs of mesodermal origin are more seriously affected in the Javanese than in Europeans, but congenital syphilis, metasyphilitic diseases and syphilis of the internal organs are rare.

Leprosy in Palestine.—Canaan's material consists of 261 patients. The best results were obtained by chaulmoogra oil treatment. Daily doses of from 15 to 20 cc. of the oil were given by mouth and were combined with intramuscular injections of the ethyl esters of chaulmoogra or hydnocorpus oils. A period of treatment of from three to four months was usually followed by a rest period of from four to six weeks. The patients reacted with leprosy fever, which, prognostically, is considered a favorable sign. The bacilli usually disappeared during the first month of treatment. Many of the tubercles vanished and those remaining decreased in size. Ulcerations of the mucous membrane healed completely. The general and nutritive condition improved.

Beiträge zur klinischen Chirurgie, Berlin

138: 193-390, 1926

Congenital Anomalies Causing Intestinal Occlusion. K. W. Bender.—p. 193.
*Calcification and Ossification of Muscle and Lime Metastases in the Kidneys Following Transverse Lesions of the Spinal Cord. P. Meyer. p. 233.
True Adenoma of the Umbilicus. V. Föderl.—p. 255.
*Furuncle Metastases. H. Kauffmann.—p. 276.
Renal Calculus of Unusual Form and Origin. W. Arnold.—p. 288.
Experimental Free Transplantation. V. Kuzma and E. Gold.—p. 295.
Histology of Pseudarthrosis After Fracture of the Neck of the Femur. A. Schmidt.—p. 305.
Peristalsis of the Renal Pelvis in Man. A. Schmidt.—p. 325.
*Spinal Cord Compression from Vascular Changes in Meninges. O. Ritter. —p. 339.
*Pathologic Observations on the Same. A. Schmincke.—p. 353.
Papillary Neoplasms of the Biliary Tract. R. Sommer.—p. 357.
The Direction for the Screw in Fracture of the Neck of the Femur. S. Ostrowski.—p. 368.
Polypous Tumors of the Gallbladder. E. Risak.—p. 382.

Myositis Ossificans Neurotica and Lime Metastases in the Kidneys.—A healthy man, aged 20, sustained a compression fracture of the eleventh thoracic vertebra with concussion of the spinal cord at the level of the first to the third lumbar segment. Paraplegia of the lower extremities and paralysis of the bladder and rectum resulted. From three to six months later, bone, of coarsely reticular structure, formed symmetrically in the quadriceps muscles of both thighs. About ten months after the accident there were lime deposits in both kidneys. The latter phenomenon Meyer connects with the ossification in the muscle, finding confirmation in the fact that the blood calcium was increased. The source of the lime in this case was undoubtedly the bones of the paralyzed lower extremities. The atrophying bone yielded its calcium to the lymph (note the localization of the muscle ossification under the inguinal glands), and arrived thence in the blood stream. It is Meyer's opinion that the nervous system was without direct influence on the processes of bone atrophy or of pathologic calcification and ossification. He discusses the literature on the subject.

Hematogenous Infections from Furuncles.—Kauffmann describes a number of cases from Küttner's clinic. He points out that the extent of the original lesion (carbuncle or multiple furuncles in 75 per cent), but not the virulence of the micro-organism or the treatment (whether conservative or surgical) applied to the primary infection, seems to influence the question of metastasis. In immature persons the secondary infection is most likely to take place in the bones; in adults, in the soft parts. Of the internal organs the kidney, of the soft parts the gluteal musculature is most liable to be affected. Metastasis by way of the lymph stream is rare; one case is described.

Vascular Changes in the Spinal Meninges.—Ritter reviews the literature on circumscribed angiomas and varicose dilatation of the veins of the spinal arachnoid and pia and describes two new cases of the latter. Only once has the diagnosis been made before operation. The fluctuation of the nervous symptoms, accounted for by variation in the fulness of the vessels of the pia and cord, is characteristic. Early symptoms are paresthesia, accompanied in some cases by nerve root pains, weakness in the extremities and disturbances of bladder function. Motor paralyses and disturbances of sensation come later. Operation is indicated because of the uncertainty of the diagnosis, but the prospects are not very hopeful in cases of varicosity. One of his patients was improved, but died four and a half years later, probably from the cord lesion. If the vascular changes are extramedullary, ligation may help; if in the cord, it is contraindicated. Schmincke's pathologic report on one of the cases described follows.

Deutsche medizinische Wochenschrift, Berlin

53: 219-264 (Feb. 4) 1927

Fattening with Insulin. E. Frank.—p. 219.
Sulphur in Diabetes. E. Bürgi.—p. 222.
*Kidney Insufficiency in Chronic Urinary Stasis. H. Boeminghaus.—p. 222.
Late Stages of Encephalitis. H. Delbrück.—p. 225.
Undernutrition and Infection. R. Bieling.—p. 228. C'cn.
Diseases of the Gallbladder. J. Schwartz.—p. 230.
Tests for Insufficiency of the Liver. H. Jacoby.—p. 232.
*Arsenic Habit. T. Kuroda.—p. 233.
Gastric Secretion in Anesthesia. A. Elkeles.—p. 234.
*Transplantation of Testis. H. F. O. Haberland.—p. 234.
Acetylene Anesthesia. H. Schmidt.—p. 236.
Drainage in Peritonitis. H. Hans.—p. 238.
*Tubercle Bacilli in Pneumothorax Exudates. O. Ornstein.—p. 239.
A Protein Derivative from the Skin. E. Jena and Haupt.—p. 240.
Plant Extracts for Baths. Treibmann.—p. 240.
Social Insurance for the Middle Classes. Lehner.—p. 241.
The Medical Faculty at Shanghai-Wusung. E. Birt.—p. 242.
Lick's Opinion on Physicians. Goldscheider.—p. 244.

Kidney Insufficiency in Chronic Urinary Stasis.—Boeminghaus discusses chiefly two causes of death in patients with chronic retention of urine. These patients—usually with hypertrophy of the prostate of long standing—apparently die sooner under treatment than without it, even if the treatment consists only in a permanent catheterization. Some die in the first days—as a rule from failure of the blood circulation. The anuria is here only a sign if insufficiency of the heart. Injections of epinephrine and dextrose are helpful. In another group the diuresis improves, but the residual nitrogen of the blood increases. These die of true uremia.

Arsenic Habit.—Kuroda found that a dog that was fed with increasing doses of arsenic, developed tolerance to copper sulphate. This observation on the nonspecificity of acquired arsenic tolerance is similar to the results of Cloetta's experiment on the resistance of such dogs to tartar emetic.

Transplantation of Testis.—Haberland concludes that the transplanted testis invariably dies, regardless of the technic. Successful transplantations of testes from chimpanzees to man are biologically impossible. The resorbed hormones, however, may act for some time—perhaps up to seven months.

Tubercle Bacilli in Pneumothorax Exudates. — Ornstein found tubercle bacilli in thirty-two (13 per cent) of 247 pleuritic exudates. Fifty-three of the total number were obtained from patients with therapeutic pneumothorax. Thirteen of these contained tubercle bacilli (25 per cent).

Klinische Wochenschrift, Berlin

6: 241-288 (Feb. 5) 1927

Pathogenesis and Treatment of Anuria. P. Jungmann.—p. 241.
*Leukemias After Reducing. H. Curschmann.—p. 245.
*Hormone of Anterior Lobe of Pituitary. B. Zondek and S. Aschheim.—p. 248.
Metabolism of Cancer Cells and Leukocytes. A. Bakker.—p. 252.
Meinicke Turbidity Test and Microtest. M. Stern and T. Frank.—p. 254.
Pathogenesis and Prognosis of Hypertension. N. Tolubejewa.—p. 256.
Hydatid Fluid. G. Hosemann.—p. 259.
Complement Fixation with Active Serums. I. Berger.—p. 260.
Ultraviolet Ray or Vitamin C? K. Huldschinsky.—p. 260.
Rhythmic Contraction of Arteries and the Sympathetic. H. Lewin and E. Schilf.—p. 261.
Action of Insulin on the Stomach. A. M. Predtetschensky et al.—p. 261.
Fissure of Rib from Coughing. H. Schoenemann.—p. 262.
Congenital Syphilis. A. Buschke and M. Gumpert.—p. 263.
Sex and Mortality. H. Silbergleit.—p. 268.
Orthopedic Treatment of Pulsions in Parkinsonism. S. Weil.—p. 286.

Leukemias After Reducing.—Curschmann reports four cases of leukemia which followed a reducing treatment. Thyroid extract had been used in three, diet alone in the fourth.

Hormone of Anterior Lobe of Pituitary.—Zondek and Aschheim found that implantation of the anterior lobe of the pituitary or injection of its extract caused marked enlargement of the follicles of the ovary of young mice (6 to 8 Gm. in weight) and subsequent estrus. They regard the hormone of the anterior lobe of the pituitary as superposed to the function of the ovary. It does not act in a castrated animal.

Medizinische Klinik, Berlin

23: 117-154 (Jan. 28) 1927

Action of Synthalin. H. Strauss.—p. 117.
Gastroduodenitis and Ulcers. G. Hauser.—p. 120. C'td.
*Surgery of Bilateral Tuberculosis. M. Borchardt et al.—p. 123.
Dermographism in Mineral Baths. M. Lowy.—p. 124.
*Treatment of Acute Encephalitis. B. Glesinger.—p. 127.
Iodized Oil and the Internal Organs. M. R. Castex.—p. 129.
Diagnosis of Activity. E. Szász.—p. 132.
Xanthoprotein Test in Nephritis. G. Scherk.—p. 133.
Examination of School Children. P. Karger.—p. 136.
Practical Obstetrics. H. Kritzler-Kosch.—p. 138.
Expert Testimony. Von Schnizer.—p. 140.
Problems of Scarlet Fever. B. de Rudder.—p. 141.
Obstetrics 100 Years Ago. Kupferberg.—p. 152.
Treatment of Tuberculosis of the Eyes. H. Davids. Supplement.—pp. 1-32.

Surgery of Bilateral Tuberculosis.—In bilateral tuberculosis Borchardt, Dünner and Mecklenburg institute pneumothorax on one side and perform exeresis of the phrenic nerve on the other. The latter intervention is preferable on the side with greater tendency to cirrhosis or with lesions in the lower lobe. Cavities require pneumothorax. Four of their eight patients thus treated died, four improved.

Treatment of Encephalitis.—Glesinger recommends, in acute encephalitis, daily intravenous injections of a solution containing 8 Gm. of methenamine. He has the impression that the results may be further improved by a combination of this treatment with intravenous injections of neoarsphenamine and cautious protein treatment.

23: 155-194 (Feb. 4) 1927

*Carotid Sinus Reflexes. H. E. Hering.—p. 155.
Immunization by Mouth. E. Fränkel.—p. 157.
*Gastroduodenitis and Ulcers. G. Hauser.—p. 159. C'cn.
Aneurysma Dissecans. H. Dorendorf.—p. 161.
Eclampsia Without Convulsions. P. Caffier.—p. 162.
Anterior Mediastinum in Shrinking Processes in the Thorax. A. Kirch.—p. 165.
Pathology of Trichinosis. F. Pavlica.—p. 167. C'td.
Pathogenesis of Endogenous Psychoses. E. Rubensohn.—p. 169.
Calf Spleen for Preparation of Culture Mediums. F. Berger.—p. 171.
Bilirubin. Kirković and R. Russew.—p. 172
Injuries from Athletics. W. Baetzner.—p. 173.
Practical Obstetrics. H. Kritzler-Kosch.—p. 176.
Survey of Surgery. Kroll.—p. 179.
Ophthalmology. C. Adam.—p. 182.

Carotid Sinus Reflexes.—Hering discusses the question whether hypertension could not be due to an absence of the depressor reflexes of the carotids and aorta.

Gastroduodenitis and Ulcers. — Hauser criticizes Konjetzny's opinions. He believes that ulcers are not due to gastritis or duodenitis.

Monatsschrift für Kinderheilkunde, Leipzig

35: 1-96 (Jan.) 1927

Skin Diseases and Infections in Childhood. C. Leiner.—p. 1.
Periarteritis Nodosa. F. Basch.—p. 26.
*Influenzal Sepsis in Infants. L. Buchholz.—p. 31.
*Therapeutic Results with Strontium Salts in Tetany in Infants. O. Tezner.—p. 37.
Urinary Carbon in Infants. S. Éderer.—p. 50 and p. 57.

Influenzal Sepsis in Infants.—In five infants who died with the clinical symptoms of sepsis, Buchholz was able to cultivate influenza bacilli (Pfeiffer) in pure cultures both from material obtained by puncture of the heart and from the blood stream. The clinical picture of influenzal sepsis in infants is characterized by sudden onset during complete health, rapid course and fatal result. Meningitis is a frequent complication.

Therapeutic Experiments with Strontium Salts in Tetany in Infants.—Tezner administered strontium salts to spasmophilic infants. The galvanic values increased in almost every case. The mechanic hyperexcitability was favorably influenced in seven of ten cases. Eclamptic convulsions rapidly disappeared. The calcium content of the blood increased.

In some cases reactions occurred characterized by loss of as much as 250 Gm. in weight, produced chiefly by vomiting. The author believes that the therapeutic effect was owing to the strontium ion

Münchener medizinische Wochenschrift, Munich

74: 223-264 (Feb 11) 1927

Epidemiology of Scarlet Fever B de Rudder —p 223
Roentgen Ray Castration P Feldweg —p 228
*Ileus and Intestinal Micro Organisms W Buchholz and H Lange —p 233
Bacteriology of Typhoid Dysentery Group K Schlirf —p 234
Tonus of Cerebral Blood Vessels After Injuries O Muck —p 236
Permanent Duodenal Drainage in Nutritional Disturbances C Funck —p 237
Foreign Serums in Treatment of Tuberculosis J Oeder —p 240
Treatment with the Patient's Own Pus A Levinson —p 241
Treatment of Cancer A Theilhaber —p 242
Tests with Retroplacental Blood Hackemann —p 242
Hot Air in Treatment of Cervical Gonorrhea E I Immel —p 243

Ileus and Intestinal Micro-Organisms. — Buchholz and Lange inhibited the growth of bacteria in an occluded intestinal loop by acriflavine In spite of this, the clinical manifestations of *ileus were the same as in animals whose* intestines contained the usual germs They conclude that death in ileus cannot be due to poisoning by bacterial toxins

Wiener klinische Wochenschrift, Vienna

40: 181-212 (Feb 10) 1927

Central Nervous System in Infectious Diseases H Durck —p 181
*Pneumopyelography M Burger and F Fuchs —p 183
Etiology of Postvaccinal Encephalitis R Kraus —p 185
*Whooping Cough in Pregnancy K Goldschmied —p 186
*Emetine in Ulcerous Colitis H Schur —p 188
*Mechanical Idiosyncrasy? E Urbach and M Steiner —p 188
Results of Sedimentation Test in Internal Medicine R Ginsburg —p 189
Calmette s Tuberculosis Vaccination H Schroetter —p 194 C'en
Treatment of Influenza M Weinberger —p 195
Substitutes for Irradiation of Ovaries P Werner —p 197
Treatment of Tuberculosis in Children H Koch Supplement —pp 1-8

Pneumopyelography.—Burger and Fuchs confirm the experiments of Lewin and Goldschmidt and others, which had shown that gas insufflated into the ureter may penetrate into the veins This accident occurs suddenly from rupture of the pelvis of the kidney in the region where the minor calices are inserted into the papillae of the kidney Because of the sudden penetration of a large mass of gas, the use of oxygen for insufflation may also cause fatal embolism, although the danger is not so great as with the use of air The rupture occurred in their experiments at a pressure of from 60 to 115 mm. of mercury—measured outside They regard the method as more dangerous than filling the kidney pelvis with contrast solutions

Whooping Cough in Pregnancy.—Goldschmied reports a case of whooping cough in a pregnant woman The spontaneous delivery occurred ten days from the onset (twenty days before term). The infant was immediately separated from the mother and fed for four weeks with milk expressed from her breast After this she suckled him while keeping a mask over her face The child did not become infected

Emetine in Ulcerous Colitis.—Schur had good results with emetine hydrochloride in patients with ulcerous colitis. He injected 0 02 Gm three times daily Besides this, daily enemas and rest in bed were ordered

Mechanical Idiosyncrasy?—The idiosyncrasy in Urbach and Steiner's patient was apparently caused exclusively by mechanical irritation by the trichomas of barley. He did not react to various extracts of the grain.

Zeitschrift für Kinderheilkunde, Berlin

43: 1-192 (Feb 14) 1927

Psychic Infantilism T Gott —p 1
Irradiated Food A Hottinger —p 8
Inability to Work in Adolescent Girls. T Bettelheim Stein and E Lazar. —p 24.
Thyroid Treatment of Hypothyroidism W. Kornfeld and E Nobel —p 65.
Diameter of Erythrocytes in Children L Paschert —p 84.
*Periodic Pathothermia. H. Vollmer —p 88
Meinicke Reaction P. Dohnal —p 103.
*Alimentary Fever and Toxicosis of Infants. H. Rietschel and F. Strieck. —p 106
Leukocytes in Pneumonia in Children. E Stettner.—p 122.
Fatal Cases of Epidermolysis Bullosa E. Jenny —p. 138.
Return of Fever in Measles A. F. Hecht —p. 149.
Action of Fetal Thyroid E Maurer —p 163.
Cerebellar Ataxia and Cortical Blindness E Redlich —p. 175.
Measles Encephalitis F. Redlich —p 178.
Perforation of Ulcer of Esophagus S Roszak —p 181.
Recovery from Tuberculosis. H Koch —p 185
Melaena Neonatorum with Ulcer. R Steinert —p. 188.

Periodic Pathothermia.—Vollmer observed in an infant periods of hyperthermia (42 C.), occurring at intervals of about four weeks and associated with loss of weight. After a few days the weight and temperature returned to the previous levels. Later on the child had attacks of low temperature at night He believes that a disturbance of the pituitary gland was responsible for these phenomena. The temperature of the patient's sister (aged 3 years) was also inconstant, varying between 36 C. and 38 C. without apparent cause The blood picture was normal in both children during the periods of high temperature.

Alimentary Fever and Toxicosis of Infants.—*Rietschel and* Strieck observed a considerable increase in the metabolism (over 60 per cent) in adults after oral administration of 10 Gm of sodium chloride in 20 cc. of water. The action was still more pronounced in infants. Simultaneous administration of a sufficient amount of water counteracts the effect of the salt They are convinced that the toxicosis of infants is only a manifestation of thirst.

Zentralblatt für innere Medizin, Leipzig

18: 169-200 (Feb 12) 1927

*Surgery of Nephritis M Kappis —p 169.

Surgery of Nephritis.—Kappis finds that the question of surgical treatment of chronic nephritis is as yet undecided. Nothing can be expected from surgery in "contented" kidneys. The results of decapsulation are good in nephralgia and in repeated hemorrhagic nephritis. Acute anuria is another indication for surgical intervention, which should not be delayed for more than two or at the utmost three days. Decapsulation might be tried in acute glomerulonephritis that does not show a definite tendency to heal in two or three months Anuria in various poisonings sometimes yields to surgical intervention At any rate, not much can be lost in such cases.

Russkaya Klinika, Moscow

6: 609-759 (Nov) 1926 Partial Index

*Tissue Eosinophilia in Tumors V. V. Alyakritskiy —p. 609.
Familial Monilethrix V A Rakhmanoff —p 642
*Effect of Mineral Water on Gastric Achylia S V. Krestnikova.—p 683.
Uric Acid in the Blood in Gynecologic Diseases. F. I. Rossinskiy.—p 701

Tissue Eosinophilia in Case of Tumor.—Alyakritskiy's research was made on 214 nonmalignant tumors, sarcomas and cancers A notable eosinophilia is frequent in cancer tissue; it is much rarer in sarcoma tissue Eosinophilia is absent in nonmalignant tumors, except polypi and certain neoplasms of the skin It is most frequent in scirrhous carcinoma and adenocarcinoma Cancers of the skin and mucous membranes are most strongly eosinophile; the slightest eosinophilia was found in cancer of the mammary gland. Tissue eosinophilia depends on the amount of disintegrated tissues, their resorption and their chemical properties.

Influence of Mineral Water on Gastric Achylia.—Krestnikova studied the action of Essentuki mineral water on thirty-two patients with gastric achylia. The water is alkaline, and contains sodium chloride The patients were under treatment for from four to six weeks. Elimination of free hydrochloric acid served as an indication of the activity of the gastric cells. Good results were obtained in cases of functional achylia and "pseudo-achylia." The mineral water treatment proved to be without effect in advanced gastritis and in most cases of organic achylia. The condition was sometimes aggravated, since a compensated achylia became a decompensated one.

The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

Vol. 88, No. 22 Chicago, Illinois May 28, 1927

THE SPECIALIST: WHAT SHALL WE DO WITH HIM?

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NEW YORK

The specialist is at once the hope and the despair of modern medicine. That he has contributed much to medical progress is generally acknowledged, and there is at least a reasonable probability that his scientific contributions will continue. Let us hope, at all events, that they will.

In everyday practice, the specialist's knowledge is often indispensable to a correct understanding of obscure diseases, his skill a necessary means to the restoration of bodily function or the saving of life. His successes, often impressively dramatic and hence widely advertised, have won for him an astonishing influence. Strange diseases are made fashionable by his simple ukase, only to be banished from society when new favorites win his approval. The specialist is the prop of debilitated men, the idol of neurotic women, the restorer of undernourished children. He is admired for his industry, and is sometimes envied for his wealth. But with every increase in his activities, he tends to become more and more absorbed in detail, and finds it increasingly difficult to see his patient whole. The most highly successful medical specialists often lead a life of professional isolation, the consequences of which are in some respects deplorable; for, living and laboring somewhat apart, little by little the specialist acquires the habit of exaggerating the significance of symptoms which are most familiar to him and of overestimating the importance of the forms of treatment in which he is most skilful. In the course of time, his diagnostic judgment is apt to be impaired; eventually it becomes suspect even when, in an individual case, it may be perfectly sound.

An expanded blind-spot is not peculiar to the specialist in medicine; it would be unjust to ascribe to these distinguished members of the medical profession mental obliquity of an unusual kind. A naval officer calmly assures us that the construction of three additional cruisers is all that is required to prevent another war; this is the naval specialist's naive interpretation of the forces at play in the world's affairs. An English writer testifies that the intelligentsia of his country, who pride themselves on their knowledge of the latest novel, the latest poem, the latest picture, lack even the remotest interest in science. The most that can be expected of science, declares an Italian essayist, who looks on material progress as hopelessly vulgar and unworthy the attention of an intellectual aristocracy, is a more commodious water-closet or a less strident "loud speaker" for the parlor radio. Evidently scientists and clinicians are not the only specialists whose mentality is curiously circumscribed.

As I reflect on the psychologic peculiarities of the specialist in medicine, a dozen characteristic incidents, each revealing a more or less twisted mental horizon, press forward from a crowded memory; but I refrain from going into the details of actual cases, because I am sure that it is unnecessary to do so; any physician of experience, or, for that matter, any layman who has had frequent contact with physicians, can readily furnish examples of his own. Virginia Woolf's picture of a Harley Street alienist, in "Mrs. Dalloway," is a trifle overdrawn, but she speaks for many intelligent laymen when she observes that "if a doctor loses his sense of proportion, as a doctor he fails."

Many charges besides that of distorted vision have been brought against the medical specialist. Critics say that he has caused to be thrust aside the old-fashioned family practitioner, for whose wise and kindly ministrations he has provided no adequate substitute; that he has increased inordinately the cost of medical treatment, making it a forbidding specter to be avoided or a painful burden to be borne by persons of moderate means; that he has lessened the effectiveness (or at least added to the difficulties) of undergraduate medical education by causing the curriculum to become crowded and confused; that he is directly or indirectly responsible for the creation of many of the harmful medical cults which flourish in the land, building false hopes on the quicksands of pseudoscience.

But, as a hospital administrator, what troubles me most is the fact that specialism, which in its proper sphere has served and continues to serve a highly useful purpose, has split the forces of medicine into numerous small bodies which, valuable as they may be for skirmishing purposes and in certain critical emergencies, are powerless to act as an effective unit in the endless struggle against disease. This distressing fact prompts the question whether anything can be done by means of hospital organization to promote the training of specialists under conditions that will conserve and develop in them what is soundest and most useful, while checking the growth of eccentricities which arise out of their professional isolation. It is not sufficient that these scintillating stars adorn the medical heaven; they should also illuminate it.

I take it to be the duty of medical administration to facilitate the utilization of the potential resources of modern medicine in dealing with the needs of the individual patient. To accomplish this object, hospital organization must encourage the growth of specialization to a point at which its effective coordination with general medicine can be maintained; to pass beyond this point is to rob the patient of the desirable fruits of scientific and technical progress. The most important of the available instrumentalities in the attempt to "cash in" on medicine are certain types of hospitals —large, small, general and special. Certainly, hospitals have a potential usefulness infinitely greater than that of the scattered organizations of various kinds which through group diagnostic practice are making a logical but not an entirely successful or sufficiently far-reaching attack on this problem. Let us therefore inquire whether our aim can be most readily achieved in small hospitals, in larger general hospitals, in scattered special hospitals, or in assemblages of special hospitals popularly called medical centers.

As a first step toward hospital organization in a community of small size and of limited financial resources, the small hospital is a useful and highly commendable social agency, which it is far from my purpose to disparage. A pronounced advantage of the small hospital is the ease with which it can maintain a pleasant homelike atmosphere, the lack of which does not add to the charms of its bigger sister institutions. On the other hand, the small general hospital is distinctly handicapped by its inability to maintain, on a sound economic basis, a laboratory organization of high grade for purposes of diagnosis and research. Of paramount importance to the present discussion is the impracticability of including within the contracted framework of a small hospital specialized departments of sufficient capacity to satisfy the legitimate needs of first-rate specialists. For his proper use and development the specialist requires a distinctive department in which studies of groups of patients can be made, in which new methods of treatment can be investigated under proper control, and in which medical graduates of promise can be trained to become the specialists of the future, and these facilities the small general hospital cannot supply.

The hospital which is devoted to the practice of a single highly specialized branch of medicine or surgery likewise suffers from pronounced limitations. Unlike the small general hospital, its selected clinical material is ample for its chosen purpose; but the special hospital resembles the small general hospital in being, as a rule, incapable (exceptions must, of course, be recognized) of maintaining a complete laboratory staff of the highest quality; while in its peculiar self-created environment, in which it is divorced from steadying contact with other medical branches, the classic evils of specialization are bred. How many busy specialists are capable of taking a thorough clinical history, or of making a satisfactory and complete physical examination? How many specialists are there who even claim to be able to do so? If it is true that the general practitioner needs the stimulation, advice and technical service of the specialist, and that the latter is therefore an indispensable part of an efficient general hospital organization, it is equally true that the specialist needs constant contact with physicians whose attention is not fastened unremittingly on certain regions of the body, on certain bodily functions, or on the use and development of elaborate technical procedures which have only a limited application; and those who know the actual routine of special hospitals must admit that the distinguished "consulting physician" whose name is conspicuously displayed in the hospital catalogue does not often render, and indeed is scarcely in a position to render, the necessary routine auxiliary clinical service.

How, then, can the limitations of the small general hospital, and likewise the hazardous isolation of the specialized hospital, be overcome? How can medicine be made to go steadily forward on an even keel? Two methods suggest themselves.

One method, which has received a great deal of publicity of late, is to bring together in a single locality a large number of highly developed specialized institutions, each of considerable size; this is the so-called medical center. Another is to find a place for recognized medical and surgical specialties within the framework of a general hospital just large enough to accommodate all the clinical branches that have earned the right to recognition, but no larger. Each of these methods claims authoritative support. Let us compare the relative merits of the two systems.

In the general hospital of suitable size, say a hospital of about 500 or even 600 classified beds (in this figure unclassified private rooms are not included), there is or can be provided for each of the various medical and surgical specialties a sufficient number of beds to afford to each specialist that volume of clinical material which is necessary for group study, for related laboratory research, and for specialized medical training. If the total number of beds is increased to two or three thousand (even five thousand has been proposed) the inevitable result is to change interrelated departments into mammoth specialized institutions, whose heads cannot easily avoid becoming absorbed in time-consuming administrative problems and distracting duties that lead away from the actual practice of clinical and scientific medicine—problems and duties that are the bane of the existence of clinicians in the larger teaching institutions. This is the testimony, in and out of print, of many who are being ground in the insatiable mill of modern medical school organization. In the properly proportioned general hospital these handicaps are avoided by restricting the size of each special department.

While there are certain advantages in bringing a number of highly specialized institutions, each of large size, into the same neighborhood, the practicability of actual clinical cooperation between the heads of such institutions in the treatment of an individual patient is far less than in the case of a general hospital of moderate size in which the very nature of the construction and arrangement of the buildings brings into intimate daily contact the men who head the several departmental services, to each of whom there is reserved sufficient time for the desired servicee. Two of the ablest otologists in the country have told me that although they had served for years as consultants to general hospitals and as attending otologists to ear and throat hospitals, they did not really understand the true relations of their specialty to general medicine until they became attending otologists to a general hospital under conditions which brought them into intimate daily contact with fellow practitioners in other fields, and which revealed to them, in the general medical and surgical wards, aspects of otology which the clinical material of the special hospital did not and could not present.

Briefly, then, modern medicine can be practiced most effectually in a general hospital which, on the one hand, should not be too small to accommodate the various specialties, but which, on the other, should not be so large as to use up the time and strength of the specialist, either in an unwieldy chemical service or in administrative problems, or to necessitate the awkward physical separation of clinical departments from each other, thus making intimate cooperation impossible, and, indeed, making any cooperation whatever workable only through the use of cumbersome administrative machinery. I question whether so-called medical centers, which are springing up all over the country, do not by their stupendous size and the very terms of their organization, which includes many excessively developed clinical departments, tend to perpetuate rather than relieve or abolish the faults of specialization. It is an old saying, attributed to the Zend Avesta, that "a man who makes two blades of grass grow where one grew before has done more to win salvation than he who utters ten thousand prayers." Joining a medical center is perhaps the only gesture possible to an existing special hospital that is conscious of its shortcomings and is honestly seeking scientific salvation, but I see in it little more than a pious wish, an act of faith, a prayer for earnestly desired better things; healthy new blades of grass, to enrich and beautify the garden of medicine, are far more likely to spring from the fertile soil of the general hospital.

At this point, a friendly critic, who believes that I am stressing somewhat too sharply the obstacles to the clinical cooperation of clusters of allied hospitals, remarks that while it may be true that the chiefs of such institutions will be too preoccupied to participate regularly in miscellaneous bedside consultations, there is no reason why subordinate staff members should not be numerous enough to provide as many consultations as the several services may require; to which I reply that a clinical service takes its orders and its characteristic tone from its chief, and that the extramural clinical contacts of juniors will not readily correct the myopia of their masters.

It is not only the internal defects of the medical center (defined as a group of special hospitals) that disturb me, but the indirect effect of this type of hospital organization and grouping on other institutions; for the encouragement of large special hospitals prevents the development of properly proportioned special departments in numerous general hospitals, and thus works double injury on both physician and patient. Few general hospitals have been so fortunate as my own in rounding out their clinical organizations in good season.

Naturally, the bigness of medical centers appeals to local pride. The newspapers of the metropolis of the West tell us with evident satisfaction that it will soon have a medical center which will exceed in size any medical center in the East. Such an announcement gratifies those who regard bigness as the supreme virtue; a numerous company, members of which, oddly enough, are encountered almost as frequently within the classic precincts of the university as among the unsophisticated whom one expects to meet in the bland open spaces of Main Street.

It is not difficult to understand the sense of relief that comes to the distracted dean of a medical school, as he contemplates the proposed assemblage of a group of special hospitals containing a vast aggregation of clinical material in the immediate neighborhood of his school, whose students formerly were obliged to travel all over town for clinical instruction which it was always difficult to arrange, and still more difficult to control; but much more than the comfort of the dean or the convenience of the undergraduate student is at stake, for unless medical practitioners are brought into right relations with one another through efficient hospital organization, patients will be deprived of the full benefits to which they are entitled and, if the practitioners are teachers of clinical medicine, students will be exposed to harmful influences. As I see it, the real remedy, which is not beyond reach, lies in the orderly development of properly balanced general hospitals in all parts of the country. It is fortunate that the distribution of the population favors this form of development, and that outside the very largest cities, or apart from a few artificially fed state university medical centers whose achievements, under difficult conditions, command respect, the development of large special hospitals, singly or in groups, is almost impossible.

The remedy proposed must, however, be applied with intelligent purpose. It will not suffice merely to establish numerous general hospitals of the type here advocated, leaving the rest to chance; for while some specialists achieve, quite spontaneously, a just appreciation of the blessings of clinical cooperation, others need to have an understanding of these blessings thrust on them. General hospitals must, therefore, be created and fostered with the clear intention of using them as a means of coordinating and unifying medical practice; the daily routine of the hospital must be organized and directed to this end. Like the states of the Union, the medical specialties have certain inherent rights, and these the general hospital must recognize and respect; but active interdepartmental traffic is as vital to the welfare of the patient, as interstate commerce is essential to the prosperity of the nation, and persistent encouragement of this traffic should be the keynote of hospital policy. Herein lies sanity for medicine and safety for the multitudinous sick.

Fifth Avenue and One Hundredth Street.

HISTORY TAKING IN BRONCHIAL ASTHMA*

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Bronchial asthma may be due to many different causes and an exhaustive history is of fundamental importance in the specific diagnosis of this disease. I will endeavor to outline the method of taking such a history, indicating, as I go along, the significance of the various factors.

AGE

The first point to be considered is that of age, although the actual age of the patient is nothing like as important as the age of onset of the asthma. Naturally, the prognosis is not as good in an asthmatic patient past middle life as it is in a younger one, as in the older patient there is much more likelihood of organic changes in the lungs and heart, such as emphysema, bronchiectasis and myocarditis. The age of onset, on the other hand, is of importance in that the earlier in life the asthma starts, the more likely it is to be due to sensitization. This is just what we would expect, as it seems much more likely that a patient would become sensitive to some foreign substance when he first eats it or comes in contact with it, than that he would become sensitized to it after many years of exposure. This is particularly true of food sensitization. Animal epidermal and pollen sensitiveness also almost invariably begin before the age of 40. Asthma starting after the age of 40 is usually due to bacteria.

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* Read before the Medical Society of the District of Columbia, Feb. 9, 1927.

OCCUPATION

It is quite important to ascertain the occupation of the patient, as herein may lie the entire cause of his asthma. In bakers, for example, we are suspicious of wheat flour as the cause of the trouble; in grooms, we think of horse dander; in dairymen, cattle hair; in farmers, any of the farm animals; in druggists, powdered drugs, such as ipecac. It is important also to determine the occupation of other members of the household with whom the patient comes in contact. For example, a veterinarian or a laboratory man working with animals may bring home on his clothing and hair sufficient of the animal epidermal emanation to cause asthma in a highly sensitive individual.

FAMILY HISTORY

The tendency to develop sensitization to some foreign substance is inherited in about half of the cases. A history, therefore, of asthma, hay-fever, hives or eczema in the antecedents is suggestive of sensitization.

PAST HISTORY

When the patient has been troubled with hay-fever, hives or eczema, in addition to asthma, it definitely increases the likelihood of sensitization. Eczema in infancy or childhood followed by asthma is very suggestive of food sensitization.

SEASONS

Perennial or nonseasonal asthma may be due to sensitization to foods, animal epidermals, bacteria or miscellaneous inhalants, such as orris root or pyrethrum. Perennial asthma is also occasionally due to pollen sensitization, but as a rule these cases are worse during the pollen season. Seasonal asthma, on the other hand, is generally due to pollen sensitization. In this part of the country, those cases occurring in the early spring are usually due to tree pollens, those in the late spring and summer to pollens of the various grasses and plantain, and those in the fall to the ragweeds. Seasonal asthma is also occasionally due to bacteria. Seasonal bacterial asthma is frequently limited to the winter months, but also commonly occurs during the changeable weather of early spring and late fall. One differential point between the spring and the fall seasonal bacterial cases and pollen asthma is that the bacterial cases are more irregular in their time of starting and stopping than the pollen sensitive cases. Seasonal asthma may also be occasionally due to sensitiveness to some seasonal food. In patients sensitive to the animal epidermals, the time at which they have asthma may coincide with the molting season of animals to which they are exposed.

CLIMATE

Asthmatic patients quite frequently give the history of having asthma more or less constantly in one place, and on going to another locality to live or visit, become suddenly free from asthma, but on coming back to their original residence promptly have it again. This is generally attributed to the beneficent influence of climate. With the exception of bacterial asthma, however, climate has little, if anything, to do with it. Bacterial asthmatic patients are occasionally relieved by moving to a more favorable climate, as a result of the beneficial effect on the underlying bronchitis. As proof that change of climate has nothing whatever to do with the spectacular relief obtained by some asthmatic patients on going to another locality, it may be stated that they can usually obtain the same amount of relief by going to a hospital or hotel near their home, with identical climatic conditions. The explanation lies in sensitization to some substance in the patients' environment, most commonly some pet or domestic animal, which they get away from on leaving home.

SKIN TESTS

I am absolutely opposed to the policy of testing every patient with every allergic substance on hand. What tests to make and what tests not to make should be decided entirely by the history of the individual case. Every substance to which the slightest suspicion can be obtained from the history should, of course, be tested. In addition to this, patients whose asthma began before the age of 40 should be tested with all the substances they eat or come in contact with at least once a week during the period of the year in which they have asthma. If a patient is found to be definitely sensitive to some foreign substance, the interval of contact in selecting the substances to be tested may be widened out to once a month, as a person who is sensitive to one substance is quite likely to be sensitive to others, especially those closely related. On the other hand, in patients whose asthma has its onset after the age of 40, it is usually sufficient to test with the foods and other substances that they eat or come in contact with every day during the period of the year in which they have asthma.

FOODS

It is important to ascertain whether the patient has ever eaten anything at any time in his life that seemed to aggravate his asthma, or disagree in any way. Foods to which individuals are sensitized may produce symptoms from contact with any part of the alimentary tract from the mouth to the anus, as follows: swelling of the lips, swelling of the tongue, breaking out of the mouth, expectoration, itching or constriction of the throat, indigestion, nausea, vomiting, pain in the stomach or intestines, diarrhea, pruritus ani. Itching or breaking out of the skin following the ingestion of some particular food is very suggestive of sensitization to that article of diet. Symptoms of irritation of the eyes and nose may also be due to food sensitization, occasionally by ingestion, but much more frequently by local contact with some powdered food substance, such as wheat flour. This is a fairly common form of sensitization in bakers, or housewives who do their own baking. Many patients believe that they cannot eat certain foods merely because some physician or friend has told them that they should not. The patient's own experience is usually more reliable. With reference to foods, it is important to remember that it is only the protein in the food that can cause sensitization. Carbohydrates and fats probably have no bearing other than that, if taken in excess, they may produce a digestive disturbance and thus permit protein to be absorbed undigested. In inquiring as to the foods entering regularly into the patient's diet, it is important to remember that some of the staple articles, such as egg, milk, and wheat flour, are encountered in innumerable ways. For example, a patient may state that he never eats eggs, but he is undoubtedly getting egg in other foods.

Egg is used in cakes, custards, puddings, graham crackers, cornbread, mayonnaise dressing, sea foam and other candies, glazing on pastries, most baking powders, and the like. Wheat flour, in addition to being in all cakes and pastries and numerous cereals, is used in practically all breadstuffs and as a thickening for soups and gravies. Buckwheat is used at times as a filler in pepper. Sweet potato is used in the glue on postage stamps. Garlic is usually employed to season smoked sausage. Cottonseed oil is present as a substitute for olive oil in bought mayonnaise dressing and in some lard substitutes. It is also used at times in the preparation of synthetic gin. These few examples show how careful one must be in ascertaining all the articles entering into a patient's diet.

ANIMAL EPIDERMALS

It is extremely important to inquire as to what animals are about the home or place of occupation. The patient should be asked whether he has ever noticed that contact with animals, such as petting a cat or a dog, riding horseback or in a horse-drawn vehicle, going in or near a stable, currying a horse, going to a horse show or horse races, milking a cow, or going to the circus or the theater where there are animal acts, causes any symptoms of irritation of the eyes or nose, or aggravation of the asthma. In addition to actual contact with animals, careful inquiry should be made as to which of the animal epidermals, such as feathers, hair or wool, are present in the patient's environment. For example, chicken, duck or goose feathers may be used in bed and sofa pillows, mattresses and down comforts. Horsehair may be used in hair mattresses and pillows, in overstuffed furniture, as upholstery, and as padding in clothing. Cattle hair also is used in some hair mattresses. Goat hair is used occasionally as stuffing for mattresses, especially those brought over by emigrants from Europe. It is also present at times in automobile upholstery, and in the form of mohair in upholstery, draperies and clothing. Hog hair is found in automobile cushions. Cat hair and rabbit hair are found in cheap dyed furs, especially as collars on the cheaper grade cloth coats. Rabbit hair is also found in cheap mattresses and pillows, in felt hats and in children's toys. Sheep wool is found in blankets, comforts, mattresses, rugs and clothing. Camels' hair is found in antique overstuffed furniture, and in coats, hats and scarfs.

BACTERIA

Bacterial asthma is commonly spoken of as nonsensitive asthma or asthmatic bronchitis to distinguish it from the true sensitive or allergic asthma due to foods, animal epidermals and pollens. There are certain points in the history which aid in differentiating the two. When there is itching of the eyes, the case is not likely to be a bacterial one, as definite itching of the eyes is very suggestive of sensitization, in fact is almost always present where sensitization exists to some air-borne substance. The nasal secretion in bacterial cases is likely to be thick, sticky, and frequently yellowish, in contrast to the thin, clear, watery secretion of the sensitive cases, although there may be a thin, watery secretion with a streptococcus infection. Likewise, the sputum in the bacterial case is more likely to be of a greenish-yellow, purulent nature than the grayish-white, jelly-like sputum of the sensitive asthmatic patient. The bacterial asthmatic patient usually has a great deal more cough and expectoration than the sensitive individual. In the bacterial type, as a general rule, cough initiates the attack, whereas, in the sensitive type, shortness of breath and wheezing are the first symptoms noted, and cough does not usually occur until the attack is breaking up. Between attacks, the bacterial asthmatic patient frequently has more or less cough and expectoration, whereas the sensitive asthmatic patient is usually free of these symptoms. In bacterial asthma the most common time for the attacks to begin is in the early morning hours, whereas in sensitive asthma the attacks come on at any time, out of a clear sky, dependent, of course, on ingestion of some offending substance or exposure to it. Sensitive asthmatic attacks are usually more abrupt in their onset than the bacterial type. Bacterial asthmatic patients are usually more susceptible to sudden changes in the weather than sensitive patients. Bacterial asthmatic patients are also more subject to "colds," sinus trouble, and the like, than the sensitive patients. Bacterial patients will commonly give the history that they never have asthma except when they take "cold." The sensitive asthmatic patient also occasionally gives this history, when in reality the attacks are not due to taking "cold" at all, as the symptoms simulating a "cold," such as sneezing, running of the nose and watering of the eyes, are merely reactions of the mucous membranes to some offending substance. These sensitive cases may usually be differentiated from the bacterial ones, however, by the fact that in the former the apparent "cold" and asthma may all develop within a few hours, whereas in the latter it usually requires several days for a head "cold" to get down in the bronchial tubes and produce asthma. Bacterial asthmatic patients are much more likely to have fever with their attacks than are those whose asthma is due to sensitization to foods, animal epidermals or pollens, who usually have a subnormal temperature.

POLLENS

Inquiry should be made of every patient with asthma as to whether trees, plants, flowers or weeds, such as grass, hay, roses, goldenrod or ragweed seem to bother him in any way, especially if the attacks are limited to or worse during the pollen seasons, spring, summer or fall. Pollen asthmatic patients usually give a history of having had typical seasonal hay-fever one or more years before the onset of the asthma. Seasonal pollen asthmatic patients usually have hay-fever for a period of from several days to a couple of weeks each season before the asthma sets in. The symptoms of hay-fever are, briefly, itching, burning, redness and watering of the eyes; irritation, sneezing and running of the nose, alternating at times with complete stoppage of the nostrils because of swelling of the mucous membrane; itching deep in the ears and back in the roof of the mouth; a feeling of fulness in the head; and general prostration. These symptoms would be the same, however, whether due to pollen or to any other air-borne substance, such as the animal epidermals or orris root.

Seasonal pollen asthmatic patients give a history of attacks recurring annually coincident with the period of pollination of some of the anemophilous trees, grasses or weeds. A knowledge of the pollinating period of the various wind-pollinated plants in any particular locality is therefore essential. For example, in the District of Columbia and vicinity, the vario trees pollinate from the latter part of February until about the middle of May, the important grasses successively from about May 10 until the 4th or middle of July, English plantain starting about the same time as the grasses and continuing until about the 1st of August, giant ragweed from about August 10 until September 15 or 20, and short ragweed from about August 17 to 19 until frost, which usually occurs the first part of October. In seasonal asthma occurring during spring, summer or fall, other points in the history that would suggest pollen sensitization would be: symptoms worse on dry, sunny, dusty days than they are on damp, wet, rainy days (rain tending to wash the pollen from the air); worse in the early morning hours, as a result of the greater amount of pollen in the air at this time; worse in the country than in the city; definite aggravation of symptoms from an automobile ride or a train trip; relative or complete freedom at the seashore except when there is a land breeze; complete freedom for the autumnal cases in Europe where there is no ragweed.

MISCELLANEOUS INHALANTS

Under miscellaneous inhalants as a cause of asthma, orris root easily takes first place, because of its extensive use in face, talcum and tooth powders, sachets, and dry shampoos. Every patient with asthma should be questioned, therefore, as to whether contact with these articles causes symptoms of irritation of the eyes or nose, or aggravation of asthma. Asthmatic patients sensitive to orris root frequently give the history of being made definitely worse by crowded places, such as theaters, ballrooms, and street cars. This is due to the large amount of orris root present in the air of such places. Careful inquiry should be made of every asthmatic patient as to whether contact with house dust or any other substance in a powdered form seems to aggravate his trouble. Of course, dust is more or less irritating to every one, but the symptoms resulting from sensitization are very different from those of mere mechanical irritation of the mucous membranes. Pyrethrum is a common ingredient of insect powders and is occasionally a cause of asthma. Sensitization to kapok is seen at times. Although a relatively rare form of sensitization, it is important to be aware of its existence, as asthmatic patients are frequently advised to substitute kapok pillows for their feather ones, and if the patient should happen to be sensitive to kapok, such a change might do more harm than good. Kapok is a sort of floss or silky wool that is quite commonly used as a stuffing for pillows and cushions, and occasionally for mattresses. It is obtained from the pods of a tree indigenous to the East and West Indies that is closely related botanically to cotton plants. Patients sensitive to kapok are therefore usually sensitive to cottonseed. Sensitization to linseed meal, a common component of poultry feed, is another rather unusual cause of hay-fever and asthma.

CONCLUSION

The value of a history in bronchial asthma is dependent on: the care and patience with which it is taken; the physician's knowledge and appreciation of the significance of the various factors involved, which is acquired largely by experience; and the intelligence and cooperation of the patient.

1801 Eye Street N.W.

A SIMPLE COLOR TEST FOR BROMINE IN BODY FLUIDS *

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Salts of bromine have largely been replaced by phenobarbital and other sedatives in the treatment of epilepsy, and as sedatives in other neurologic conditions. Nevertheless, bromides are still extensively used, particularly in the form of "patent medicines" and nostrums taken for the relief of headache, colds, influenza, and even as laxatives.

The untoward effects that not infrequently follow the ingestion of even small amounts of bromide are well known. The lesser evidences of what might be termed bromide intoxication, or bromism, are gastro-enteritis, and the less severe types of bromexanthems or bromodermas. Of more serious consequence are occasional definite toxic psychoses and the more severe forms of bromodermas.

Of the three halogens, bromine is the most difficult to determine qualitatively in body fluids, especially in the presence of the other two.

In a recent study of the experimental aspects of iodide and bromide exanthems, Wile [1] showed that in body fluids bromine and chlorine could be liberated by the addition of potassium permanganate and sulphuric acid. The detection of the gases liberated under these conditions and their definite separation depended on the difference in the smell. When bromine was present in moderate or large quantities this was not difficult, particularly when the test was properly controlled by solutions containing chlorine alone. When bromine was present, however, in small amounts, considerable uncertainty existed as to whether the escaping gas was chlorine or bromine.

In certain cases, particularly those of toxic psychoses which have been induced by the ingestion of bromine salts, as well as in cases in which a definite diagnosis of bromoderma is difficult, a simple qualitative test for the detection of bromine in the urine would serve to establish a diagnosis when one might not be made by clinical criteria.

In 1898, Jolles [2] described a test for bromine in the urine by oxidation with potassium permanganate in acid solution. As an indicator he used filter paper moistened with aqueous solution of hydrochloride of *p*-dimethylphenylendiamine. The presence of bromine, according to this test, turned the paper from violet, through blue and green, to brown.

The difficulty attendant on this test, however, lies in the fact that iodine and chlorine color the indicator brown, but with different shades of the same color.

In 1907 Andrews,[3] in his article describing a quantitative method for the separation of chlorides and bromides, mentioned the use of fluorescein paper in testing for the presence of traces of bromine. The color change is described in this article as being from yellow to orange. Since his problem was one in quantitative chemistry, he of course makes no mention of a possible application to medicine.

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* Studies and contributions of the Department of Dermatology and Syphilology of the University of Michigan, service of Dr. Udo J. Wile.

[1] Wile, U. J.; Wright, C. S., and Smith, N. R.: A Preliminary Study of the Experimental Aspects of Iodide and Bromide Exanthems, Arch. Dermat. & Syph. 6:529-541 (Nov.) 1922.

[2] Jolles, A.: Wien. klin. Rundschau, 1898, number 12.

[3] Andrews, L. W.: Separation of Chlorides and Bromides, J. Am. Chem. Soc., 1907, p. 279.

The basis of the test here described lies in the transformation of fluorescein into eosin when bromine is added to the former, as shown by Fresenius.[4] This test not only recommends itself by its extreme simplicity, but as fluorescein is canary yellow and eosin pinkish red, there can never be any doubt as to whether bromine is present or not in the suspected material examined.

The test is carried out as follows: Small strips of filter paper are soaked in a saturated solution of fluorescein in 60 per cent acetic acid. These are then allowed to dry and may be kept indefinitely as indicators of the test. The suspected body fluid is placed in a test tube. To this are added a few crystals of potassium permanganate. After agitation, a few drops of concentrated sulphuric acid are added and the fluorescein paper is held, after moistening with 2 per cent acetic acid, at the mouth of the test tube.

The presence of even minute amounts of bromine is at once indicated by a rapid change in color from the original yellow to a bright pink on the paper.

The presence of chlorine and iodine in no way interferes with the detection of bromine in this test. A modification of the test has been tried and found successful, but not more delicate. It consists in blowing the released bromine gas into a second tube containing a solution of fluorescein. As the entire bromine present is in this way caught up in the fluorescein solution, it has a suggestive importance as a possible quantitative test.

During the past year we have succeeded in demonstrating bromine with this test in several cases in which a diagnosis was otherwise difficult or impossible at the time. In one case of toxic psychosis due to the ingestion of "Bromidia," bromine was detected by this test not only in the urine but also in the sweat, saliva, blood serum, gastric contents and spinal fluid.

The delicacy of the test has been experimentally worked out by us, and we have found it possible to detect bromine in a twelve hour urine specimen after the oral administration of 5 grains (0.3 Gm.) of sodium bromide.

The rapidity with which the test can be elicited is indicated by the fact that it was found positive in urine voided fifteen minutes after the oral administration of 10 grains (0.65 Gm.) of sodium bromide. Bromide added to the urine directly can be determined as bromine in dilutions of 1:40,000; in distilled water, in 1:80,000; in 5 per cent sodium chloride solution in 1:100,000, and in 20 per cent sodium chloride solution in 1:200,000 dilutions.

From the last two figures it is evident that instead of interfering with the detection of bromine the associated chlorine makes the test more delicate. In body fluid bromine was easily detected in sweat, spinal fluid, saliva and gastric contents, but found with greater difficulty in the blood. Washed red blood cells give a negative test, and serum obtained by centrifugalization gave a definite trace of bromine in the case of the patient with a toxic bromide psychosis.

CONCLUSIONS

1. The simple specific color test here described for bromine in body fluids is specific, is not interfered with by the presence of iodine, and is more delicate in the presence of chlorine.
2. In cases in which bromide intoxication is suspected, it is a simple diagnostic measure to differentiate between this and other forms of intoxication.

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[4] Fresenius: Qualitative Chemical Analysis, translation from seventeenth German edition by C. A. Mitchell, New York, John Wiley & Sons, 1921, pp. 450-451.

GRAVES' DISEASE

PROBABLE REASONS FOR FAILURE TO DISCOVER ITS ETIOLOGY

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It is about a hundred years since Graves' disease was recognized as a clinical entity, yet small progress has been made in ascertaining its exact cause. A discussion of etiology published[1] in 1908 concluded with the comment that by "close clinical observation with accurate histologic examinations and with chemical and physiologic investigations such as are now being made, especially through the cooperation of surgeons who treat such cases, we may be sure that the answer will soon be given."

Almost two decades have passed since George Dock hopefully wrote that statement, but his expectations have failed of realization. The three factors to be considered briefly here are largely responsible for retarding progress along the path which will ultimately end in revelation of the etiology and pathogenesis of this disease. These factors are, first, the premature acceptance of theories and their accompanying terminologies which replace "Graves' disease" by other names carrying implications that its pathogenesis is known; second, a misconception of the part played by iodine in the normal and pathologic physiology of the thyroid; third, an uncritical acquiescence to the post hoc, ergo propter hoc argument in evaluating surgical and nonsurgical treatment.

The first factor probably will continue to operate and still longer postpone discovery of the cause of Graves' disease, for these false and blind paths have been worn deeply in the fields to be traversed. It will require a bold and independent spirit to undertake the search, one able to disregard the various theories already propounded, their nomenclature and phraseology, like false sign-posts, tending always to lead one astray.

NOMENCLATURE

It is regrettable that Parry, Graves or Basedow did not give this disease a name which might be used until such time as a really descriptive term based on a correct knowledge of etiology can be substituted. In the meantime it would seem preferable to call the disease after one of these three pioneers. The usual objection to naming a disease, diagnostic test or therapeutic measure after its discoverer, i. e., that it is not descriptive, is the reason for using it in this instance.

Four of the most frequently used synonyms will be discussed here because each of them implies a knowledge of etiology which does not exist, yet the implication imparts a feeling of confidence as unwarranted as the term itself.

HYPERTHYROIDISM

The term "hyperthyroidism" sprang into use at some time after 1886. In that year Moebius advanced the hypothesis that this disease was due to excessive thyroid secretion in contradistinction to Gull's disease, which had just previously been recognized as due to thyroid insufficiency. This attempt to explain physiologically their clinical observations was laudable at that time but continued use of this term is not justified by the facts available. It is objectionable because it commits one to a theory of the pathologic physiology of this condition which has not been proved. Graves' disease cannot be produced by artificially increasing the amount of thyroid secretion in the body. The concluding proof, namely, demonstration of augmented secretion in the blood or lymph leaving the gland, has never been given.

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[1] Dock, George: The Development of Our Knowledge of Exophthalmic Goiter, J. A. M. A. **51**: 1119 (Oct. 3) 1908.

Another objection to the use of "hyperthyroidism" more frequently advanced is that it fails to distinguish between Graves' disease and so-called toxic adenoma. But the validity of this objection is now questioned because the results of recent researches seem to confirm the suspicions, long harbored by many, that the latter term also is a misnomer.

Though its suggestion of a theory of pathologic physiology is vague, still "hyperthyroidism" fastens the attention too closely on the thyroid as the primary seat of trouble, whereas the hypothesis is quite tenable that this ductless gland may be only secondarily involved, its entire rôle in the disease process being a compensatory function. The interesting results obtained by the exhibition of iodine may be interpreted as supporting this view. This drug seems only to influence those signs and symptoms which are intimately related to abnormal thyroid function, chiefly pulse and basal metabolic rate, and thyroid hyperplasia. Its influence on other characteristics and the general course of the disease seems to be slight.

DYSTHYROIDISM

There is probably less reason to deprecate the use of "dysthyroidism," coined by Marie, since this term is sufficiently indefinite to leave open wide fields for further investigation. It also draws attention to the thyroid and in such a way as to include hypothyroidism; but since 1886 it has been frequently pointed out that there are many resemblances between Graves' disease and hypothyroidism. So far as the thyroid participates in this disease the term "dysthyroidism" is preferable to any others, though its use implies a belief that it is a disease primarily of this gland.

EXOPHTHALMIC GOITER

"Exophthalmic goiter" is the most misleading of all the synonyms for Graves' disease. It is purely a clinical term combining two of the most evident physical observations. But striking as are these two signs they are not constantly present. Either one or both may be absent and thus it happens that the literature contains such titles as "Exophthalmic Goiter Without Exophthalmos or Goiter."[2] If reliance is placed on the presence of these two signs, especially in the early stages, the diagnosis too frequently will not be made.

Literary purists may object to this term because it exemplifies a misapplied adjective and as such does not have a place in science, where exactness of expression and clarity of thought are interdependent and poetic license is unknown. A goiter cannot be exophthalmic. It may be soft or hard, bilateral or unilateral, nodular or smooth, vascular, substernal, cystic, hypertrophic or hyperplastic, but never exophthalmic.

Thinking and writing will be clarified and facilitated by discarding all these descriptive terms. Until more is known about the etiology and pathologic physiology of this condition, physicians should not prejudge any hypothesis by adopting its nomenclature, but should continue the use of a noncommittal term like Graves' disease.

HYPERPLASTIC TOXIC GOITER

In 1913 Plummer[3] suggested a classification for diseases of the thyroid based on an attempted correlation between clinical and pathologic findings, designating as "hyperplastic toxic goiter" those cases fitting the description of Graves' disease. Use of this term has not become popular, for in addition to being too long for convenience, it confounds pathologic and clinical terms in a manner not at all illuminating. Hyperplasia is definitely proved to be the response to iodine deficiency, either relative or absolute, and does not bear a direct relationship to toxicity. The presence of a goiter means hyperplasia at its inception, and in most goiters there remain areas of hyperplasia in various stages of arrested involution toward the colloid or resting state.

IODINE

In reporting histologic study of the thyroids of seven patients with Graves' disease, Rienhoff[4] has described and pictured these areas of hypo-involution, as well as areas of hyperinvolution, which occur when iodine is given. These areas, of both types, impart a nodular character to many glands which have once been hyperplastic, and such nodular goiters have been designated "adenomatous." But Rienhoff's work has led him to believe that "these areas of hyperinvolution and hypo-involution are not benign neoplasms of the thyroid gland or adenomatous in the true sense but merely residual histologic alterations occurring during an involution of the thyroid gland following an hypertrophy and hyperplasia." Allen Graham[5] has recently expressed the opinion that there is no histologic evidence justifying a sharp distinction between Graves' disease and so-called toxic adenoma. Probably the pathologic physiology of the thyroid in Graves' disease and so-called toxic adenoma is the same and the apparent disparity is to be accounted for by the differences in time during which these pathologic processes and physiologic readjustments are at work.

Although the work of Marine and others has established the relationship existing between iodine and the histologic structure of the thyroid, knowledge of the manner in which iodine acts in reducing the toxic manifestations of thyroid disease is still lacking. But it was not ignorance of its mode of operation which prevented iodine from becoming established as a valuable medicament in this disease.

The reason is found in the fact that iodine did not fit into the theories of etiology and pathologic physiology then in vogue. In fact, according to these theories, iodine was thought to be contraindicated. Nor is it probable that the exhibition of iodine in Graves' disease would have become as widespread as it now is but for the work of Kendall, Marine[6] and others which permitted the elaboration of theories in which iodine played a necessary rôle.

Is there not a lesson for us in the history of iodine and its neglected employment in thyrotoxic states? It was not discarded for lack of proof of its effectiveness. Evidence cropped up periodically, like the classic instance in 1863, when Trousseau prescribed tincture of iodine for tincture of digitalis and noted with surprise that the pulse had dropped from 140 to 90 when he saw the patient two weeks later. Even back in the time of Graves the beneficial effect of iodine is recorded. William Stokes in his book "Diseases of the Heart and Aorta," published in 1854, says, on page 278, of a young woman in whom the thyroid was mistaken for aneurysm, "A day was appointed for performing the operation of tying the carotid artery. Happily the true nature of the affection was discovered in time and the patient was cured by the use of sedatives and the preparations of iodine."

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[2] Bram, Israel: Exophthalmic Goiter Without Exophthalmos or Goiter, M. J. & Record **119**: 33 (Jan. 2) 1924.

[3] Plummer, H. S.: The Clinical and Pathologic Relationships of Hyperplastic and Nonhyperplastic Goiter, J. A. M. A. **61**: 650 (Aug. 30) 1913.

[4] Rienhoff, W. F.: Involutional or Regressive Changes in the Thyroid Gland in Cases of Exophthalmic Goiter and Their Relation to the Origin of the So-Called Adenomas, Arch. Surg. **13**: 391 (Sept.) 1926.

[5] Graham, Allen: Exophthalmic Goiter and Toxic Adenoma, J. A. M. A. **78**: 628 (Aug. 28) 1926.

[6] Marine, David: Iodine in the Treatment of Diseases of the Thyroid Gland, Medicine **6**: 127 (Feb.) 1927.

ROENTGEN RAY AND SURGERY

The third potent factor in discouraging further inquiry into the etiology of Graves' disease is the seeming success which has attended its treatment by the roentgen ray and surgery. In a self-limited disease running a prolonged course marked by remissions and recrudescences, the "post hoc ergo propter hoc" fallacy must be avoided in evaluation of therapy. But when theory accords with practice, naught remains of questionings; practice proves theory right and theory vindicates practice. Surgery and irradiation have been aided in attaining popularity because they fitted into the current theories of pathogenesis. The theoretical considerations have been largely abandoned, however, in the case of surgery for it has developed that the degree to which "hyperthyroidism" is checked bears little relation to the amount of tissue removed. The frequency of recurrences led the surgeons to advise the removal of more thyroid tissue. Each year the word has gone forth to remove more and still more tissue until it was considered that the ideal had been reached in a subtotal thyroidectomy. But now we learn that a subtotal thyroidectomy is inadequate and is being replaced by an attempt to remove all of the gland which can safely be removed, afterward placing reliance on replacement therapy for cure.

Here is an instance wherein practice based on theory ultimately shows the theory to be wrong. The only sound interpretation which can be placed on the results of thyroidectomy is that, when the organ becomes diseased beyond possibility of recovering its normal function, amputation becomes advisable. The evidence afforded by surgical treatment is as valuable in support of a theory of qualitative dysfunction as it is in supporting a theory of hypersecretion.

It is encouraging that yearly we acquire more skill in the management of patients with Graves' disease, thanks to perfection in surgical and irradiation technic and, recently, to realization of the benefits and limitations of iodine therapy. But is it not significant that these therapeutic results have not afforded a clue to the cause of Graves' disease? This in itself is enough to raise the suspicion that none of the current theories supporting our therapy will ultimately prove true. One cannot disparage the utility of theories in arriving at the ultimate truth, but care should be exercised lest they impede progress and obscure truth.

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Situations Result in Responses.—A man's nature and the changes that take place in it may be described in terms of the responses—of thought, feeling, action and attitude—which he makes, and of the bonds by which these are connected with the situations which life offers. Any fact of intellect, character or skill means a tendency to respond in a certain way to a certain situation—involves a situation or state of affairs influencing the man, a response or state of affairs in the man, and a connection or bond whereby the latter is the result of the former.—Thorndike: Educational Psychology, p. 1.

ANTIMONY AND POTASSIUM TARTRATE IN CHANCROIDAL INFECTIONS

RESULTS OF INTRAVENOUS TREATMENT

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Chancroidal infections and especially the secondary ulcerations incident thereto have been known to be highly resistant to all forms of treatment. While most patients are seen in dispensary work, not frequently cases are encountered in private practice which baffle all our attempts at cure. Anything that will assist us in clearing up these indolent infections is sure to be appreciated by the specialist in this work.

TREATMENT

During the past year a number of patients suffering from chancroid and its complications have presented themselves for treatment at Mercy Hospital Dispensary. The routine treatment after dark-field illumination and blood Wassermann reactions established the correct diagnosis consisted in cauterizing, incision and draining when indicated and the application of frequent aseptic dressings. The drugs used were phenol (carbolic acid) and alcohol, silver nitrate and iodine, largely depending on the severity of the involvement. The length of time necessary to effect a cure varied from three to eleven weeks, with practically no difference in time according to the method of cauterization employed. In the last twenty-seven cases we have continued this routine treatment but in addition have used antimony and potassium tartrate (tartar emetic) intravenously. The results have more than gratified our expectations. The period of convalescence has been shortened more than one half, only one case which was especially severe requiring as long as six weeks; and the pain, discomfort, discharge and other disagreeable symptoms were rendered practically negligible. We have frequently noticed that after one injection the pain would disappear and the swelling in those cases involving the prepuce and glans penis would be considerably reduced.

Apparently the first to use antimony and potassium tartrate intravenously in the treatment of chancroidal infections was J. E. R. McDonagh[1] of London. In granuloma inguinale, a tropical disease etiologically related to but not identical with chancroidal infections, various investigators had obtained good results with antimony used locally and intravenously. Among them may be mentioned Araujo, Low, Newham and McDonagh. In the treatment of granuloma inguinale, therefore, the beneficial results from antimony treatment are well known. The local treatment is combined with intravenous injections of 5 cc. of a 1 per cent solution of antimony and potassium tartrate in saline solution given on alternate days. The quantity injected may be increased to 6, 7 or 10 cc. Probably because of the close relation between granuloma inguinale and chancroidal infections and the good results obtained in the former condition, McDonagh tried antimony and potassium tartrate intravenously[1] in the treatment of chancroid. He also cites Potter[2] of Melbourne, Australia, as reporting some excellent results with intravenous injections of antimony and potassium tartrate.

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[1] McDonagh, J. E. R.: Venereal Diseases, St. Louis, C. V. Mosby Company, 1920, pp. 267, 268, 363.

[2] Potter, W. L.: The Value of Intravenous Injections of Antimony Potassium Tartrate in the Treatment of Chronic Secondary Chancroid Ulcerations, M. J. Australia 2:65 (July 27) 1918.

Case records are cited by McDonagh:

> A man, aged 32, with a history of a soft sore on the penis, had a serpiginous ulcer involving practically the whole upper half of the anterior surface of the thigh For two years and a half this ulcer had resisted every treatment imaginable From the ulcer the intracellular form of Ducrey's bacillus was isolated The patient received five intravenous injections of antimony and potassium tartrate with the result that the ulcer healed completely in three weeks
>
> A man, aged 34, with a history of a soft sore and a bubo, had a chronic ulcer in the groin The ulcer presented a typical ulcus molle serpiginosum. Under potassium iodide internally, camphor-phenol and iodoform locally and antimony and potassium tartrate intravenously, the ulcer rapidly healed Speaking of serpiginous ulcers following soft chancres, McDonagh says: "It is quite clear that any operative procedure makes matters very much worse and that unless exactly the specific treatment is prescribed, nothing is of any avail."

Potter's results with the antimony treatment of chancroidal infections were very favorable. He reported three cases, all in soldiers, in which intravenous injections of antimony and potassium tartrate as recommended by J. E R. McDonagh, were administered and resulted in rapid and complete healing.

> The first patient had a large serpiginous ulcer in the right inguinal region, following a chancroidal infection Under various types of treatment, the condition persisted over a period of twelve and one-half months and became worse. Intravenous injections of antimony and potassium tartrate were commenced, 0 015 Gm in 50 cc of sterile water, and four days later 0 03 Gm At the end of six days the ulcer looked better than it had for months The injections were continued at intervals of four days Two days after the third injection, the ulcer showed remarkable improvement The ragged, undermined, thickened edge was replaced by a clean, healthy, thin margin, on a level with the ulcer The reddish-purple inflammatory areola had disappeared, there was no discharge from the surface, new epithelium was seen growing in many places, and all pain had ceased The dose was gradually increased to 0 06 Gm in the usual amount of water (50 cc), and in five weeks from the first injection, after a total of nine injections at four-day intervals, the ulcer had entirely healed

The sudden dramatic improvement following the third injection of antimony and potassium tartrate, after the ulcer had proved resistant to other forms of treatment for many months, was very astonishing The ulcer did not break down again The second and third cases were on the same order except that one showed multiple ulcers in the inguinal region. One case healed after five injections of antimony and potassium tartrate and the other after six injections, and no further breaking down occurred Consideration of these cases leaves no doubt that antimony was the predominant factor in their successful treatment. The impression is conveyed that without the administration of antimony and potassium tartrate the ulcers in these three cases would not have healed, and that other treatment was not of essential importance

After an extended experience with the use of antimony and potassium tartrate intravenously in the treatment of granuloma inguinale, Goodman[3] of New York used the same drug in the management of chancroids. In 1925 Goodman made the following statement: "As far as I have been able to determine, there has been no record, at least in this country, of the use of tartar emetic intravenously for chancroids." (McDonagh in England and Potter in Australia had employed the treatment for chancroids.) Goodman reports four cases. From three to eight injections of antimony and potassium tartrate were administered intravenously, and in all four cases the condition healed rapidly with no further breaking down.

Kingsbury and Peck of New York[4] report on the treatment of phagedenic ulceration of the genitals and other chronic infections with intravenous administration of antimony and potassium tartrate. They quote Goodman specifically as having applied this treatment in chancroidal infections. According to these authors antimony and potassium tartrate is best used as a 1 per cent solution and for the occasional user it is best procured in 5 or 10 cc. ampules. For hospital or clinic use, it may be made up in quantities sufficient for several days, but on standing for longer periods in large quantities it has a tendency to form a sediment.

In our own series of twenty-seven cases treated by this method, twenty-three, or 85 per cent, were discharged as cured while in four cases the results were more or less uncertain as the patients were lost track of after one or two injections. Of the twenty-three cases which we were allowed to follow to their termination, seventeen occurred in the colored race and six in the white race. Two of the twenty-three cases were simple uncomplicated chancroids with a merely palpable, slightly painful inguinal adenitis, while twenty-one showed either multiple lesions of the penis or single chancroid complicated by suppurative lesions of the inguinal region or the upper anterior femoral region. The smallest number of injections given was two, and the largest eight. We used a 1 per cent solution of antimony and potassium tartrate in sterile water. The water was boiled, and after it was allowed to cool, the antimony and potassium tartrate was added. This obviates decomposition of the drug if it is boiled with the water. We began with a dose of 3 cc. and increased the dose 1 cc. with each injection. The injections were given at four-day intervals. Only one patient received as much as 10 cc. at one administration. In no case did we encounter any serious reaction from the drug. Milder reactions, such as coughing, salivation and vomiting, occurred in nine cases. The vomiting in two cases was quite severe.

CONCLUSIONS

The period of convalescence or hospitalization of patients suffering from chancroidal infections and their complications will be reduced at least 50 per cent if, in addition to local treatment, antimony and potassium tartrate is administered intravenously.

The pain, discomfort, discharge, edema and other disagreeable symptoms will be perceptibly lessened or almost entirely disappear after the first few injections.

A 1 per cent solution of antimony and potassium tartrate is used. An initial dose of 3 cc., increasing 1 cc. with each dose up to 10 cc., with the administrations at four-day intervals, seems to be amply sufficient.

Of the twenty-seven cases treated at the Mercy Hospital Dispensary, twenty-three, or 85 per cent, showed excellent results.

Serious reactions were not encountered, although 30 per cent of the patients showed milder reactions, such as coughing, salivation and vomiting, all of which cleared up in a few hours. This is a higher percentage of reactions than is reported by most authors.

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[3] Goodman, J Treatment of Chancroid with Tartar Emetic Solution Intravenously, J Urology **13**: 489 (April) 1925.

[4] Kingsbury, Jerome, and Peck, S M: Treatment of Phagedenic Ulcerations of the Genitals, J A M A **87**: 1900 (Dec. 4) 1926

SPLENIC ENLARGEMENT IN HYPERTHYROIDISM *

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Splenic enlargement in hyperthyroidism has been very little mentioned in the voluminous literature on diseases of the thyroid gland. The occurrence of nodules, clumps and diffusely scattered lymphoid cells within the thyroid gland in exophthalmic goiter is an observation of long standing. A moderate lymphocytosis in the circulating blood of these cases has also been generally observed. MacCallum [1] speaks of a generalized hyperplasia of the fixed lymphatic tissue. Foster [2] includes the spleen in the generalized lymphoid reaction but does not convey an accurate notion as to the degree of splenic enlargement in exophthalmic goiter. Cameron and Sedziak [3] found that the feeding of thyroid extract to adult white rats resulted in a relative and absolute increase in the weight of most visceral organs. The increase in weight of the spleen and lymph nodes was proportionally more than that of other organs.

Incidence of Palpable Spleens with Exophthalmic Goiter

Average	Forty-Four Cases With Palpable Spleens	100 Cases Without Palpable Spleens
Age	37.7 years	36.2 years
Duration of symptoms	4.3 years	2.6 years
Basal metabolic rate on admission	+48.1%	+51.5%
Microscopic hyperplasia in cases in which operation was done	81.0%	93 0%
Adenomatous tissue	21.7%	16.6%

We have recently become impressed by the fact that splenic enlargement is quite frequent in severe and long standing cases of hyperthyroidism. Enlarged tonsils and superficial lymph nodes are also quite frequently observed. Obviously, however, it is very difficult to establish the cause for hyperplasia of the latter structures in any given case. The spleen, on the other hand, is usually not measurably affected by such intercurrent and local infections as cause hyperplasia of the tonsils and regional lymph nodes. In this series of cases we have considered as palpable only those spleens in which a definite edge could be felt with the patient either on his back or on his right side. Some increase in dulness in the splenic region has been noted in many cases in which an edge could not be felt, but because of the uncertainty in this observation no attempt has been made to estimate the size of a nonpalpable spleen.

From July 1, 1925, to Jan. 1, 1927, 144 patients with exophthalmic goiter were studied. Of these, forty-four, or 30 per cent, have had palpable spleens. From none of the patients with enlarged spleens were we able to obtain a history of malaria or other disease usually associated with splenic enlargement. Further analysis of our cases of clinical exophthalmic goiter is given in the accompanying table.

During the same period, eighty-one cases of adenomatous goiter were observed. Hyperthyroidism was present in forty-two of the eighty-one cases, but in no instances were there the typical manifestations of exophthalmic goiter. Only three patients of this group had palpable spleens.

The cause for enlargement of the spleen in exophthalmic goiter is not clear. The following suggestions taken from the literature are of interest: Krumbhaar,[4] speaking of the functions of the spleen in relation to other organs, says: "Against the thyroid, the spleen has been thought by the Asher school to have an antagonistic action; splenectomized animals are more susceptible to oxygen lack than normal animals, thyroidectomized animals less so (Streuli); the thrombin content of the serum is diminished after splenectomy, increased after thyroidectomy (Yamada); the spleen inhibits blood formation, the thyroid stimulates (du Bois) (N. B. . . . I have given reasons for believing that the spleen stimulates, not inhibits, blood formation). The diminished susceptibility of thyroidectomized rats is denied by Klinger, who also takes exception to Yamada's deductions. At best, these observations await confirmation." It would not seem justifiable, therefore, to account for the splenic enlargement in hyperthyroidism as being due to any specific antagonistic action between the spleen and the thyroid gland.

Beattie and Dickson,[5] in their discussion of exophthalmic goiter, state that "the spleen is occasionally enlarged, and exhibits, as a rule, evidence of increased hemolytic activity." We know that the spleen is often enlarged in diseases characterized by increased blood destruction, but we do not have proof that such splenic enlargement is the direct result of increased hemolysis. While the bone marrow in exophthalmic goiter is often moderately hyperplastic, the spleen in our experience does not show any demonstrable increase in hemosiderin. The blood serums in several cases of rather severe exophthalmic goiter have given neither direct nor indirect van den Bergh reactions. Urobilin and urobilinogen estimations on the stools and urine in the same cases have shown no appreciable increases. We would therefore not be inclined to attribute the splenic enlargement in hyperthyroidism to an increase in the destruction of red blood cells.

Two possible explanations for the splenomegalia are apparent from the study of our cases: First, that the splenic enlargement is passive and is secondary to cardiac failure or to cirrhosis of the liver, either toxic or cardiac; and, second, that the enlargement of the spleen is an active process with lymphoid hyperplasia and is only a part of a generalized hyperplasia of lymphoid tissue. Of these the latter seems the more plausible.

None of the patients with enlarged spleens presented the clinical features of portal obstruction, though in six instances there were signs of advanced cardiac failure. Three of these patients died, but in the remaining three, compensation, with fair cardiac reserve, followed thyroidectomy, and the residual hepatic injury was not demonstrable clinically. Moreover, thirty-eight of the patients with splenic enlargement presented neither present nor historical evidence of cardiac failure and none of the clinical manifestations of liver injury. Even if the splenic enlargement were due to passive congestion, this would in no way explain the hyperplasia of the lymphoid follicles or the similar hyperplasia of

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[1] MacCallum, W. G.: The Pathology of Exophthalmic Goiter, J. A. M. A. 49:1158 (Oct. 5) 1907.

[2] Foster, N. B., in Nelson's Loose-Leaf Medicine, 3:293.

[3] Cameron, A. T., and Sedziak, F. A.: The Effect of Thyroid Feeding on the Growth and Organ Hypertrophy in Adult White Rats, Am. J. Physiol. 58:7 (Nov.) 1921.

[4] Krumbhaar, E. B.: Functions of the Spleen, Physiol. Rev. 6:1-200 (Jan.) 1926.

[5] Beattie and Dickson: Textbook of Pathology, ed. 3, 1926, p.

[illegible] Library
[illegible] Medical College

the lymphoid tissues in other parts of the body. The spleens in our fatal cases without the clinical manifestations of chronic cardiac failure have shown no appreciable evidence of passive congestion.

In none of the cases without cardiac failure was the spleen more than 1 or 2 cm. below the costal margin, and the edge was soft and elastic to the touch. In a few instances the spleen definitely became palpable with the patient under observation, and in a very few its size has decreased measurably following thyroidectomy. The patients, as a group, have not been followed long enough to warrant a positive statement in regard to decrease in the size of the spleen following operation. In the four of our fatal cases in which necropsy was obtained, the spleen showed marked lymphoid hyperplasia, as did all the other fixed lymphatic tissues. Similar observations are reported by MacCallum and by others, while Wade Brown[6] states that "abnormalities of lymph nodes were found, cystic degeneration being a comparatively frequent occurrence" in thyroidectomized rabbits. An analogous lymphoid hyperplasia is often seen in other nonbacterial intoxications.

SUMMARY

1. Splenic enlargement in hyperthyroidism is more frequent than one would be led to believe from its lack of mention in the literature.
2. The enlargement of the spleen is part of a generalized lymphoid hyperplasia.
3. The duration of the disease is the most constant single factor in determining splenic enlargement.
4. In our series of cases, palpable spleens were found almost exclusively in those patients presenting the clinical features of exophthalmic goiter.

CHANCRE OF THE NASAL SEPTUM

REPORT OF THREE CASES

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That a primary syphilitic infection of the nasal septum may not be as rare as generally supposed is indicated by the subjoined three cases seen in private practice within the last five years.

REPORT OF CASES

Case 1.—A man, aged 30, married, was seen, Nov. 13, 1926, because of a cutaneous eruption and a lesion within the nose, producing swelling and obstruction of the left nostril. For six weeks he had noticed a "sore" in his nose which caused difficulty in breathing on that side, swelling of the face, and pain radiating to the forehead. For several weeks he had received local treatment at the Eye and Ear Infirmary, where he was told that he had an ulcer in his nose and sinus trouble. For the past two weeks the glands at the angle of the left jaw had been swollen. A Wassermann test made prior to admission was negative. The eruption was first noticed five days before, and at the same time he began to complain of nocturnal headaches, slight fever and malaise.

The patient was well developed, but anemic looking. The temperature was 99.4 F.; the pulse was 90, and the respirations were normal. The left side of the face around the nostril was edematous and the left nostril gaping. Examination of the interior of the nose revealed an elevated granulomatous ulcer at least 1.5 cm. in diameter occupying the entire anterior part of the left nasal septum, and producing almost complete obstruction on that side. The lesion gave rise to a scanty discharge, bled readily, and was indurated. The right side of the septum was normal. There was a firm packet of glands in the left submaxillary region.

Examination of the trunk and extremities showed a typical macular syphilid. There was general adenitis. Lesions were not present on the genitalia. Dark field examination of the serum from the intranasal lesion revealed numerous actively motile spirochetes. The Wassermann reaction twenty-four hours later was reported four plus positive. The intranasal lesion, as well as the eruption, rapidly healed under antisyphilitic medication with the arsphenamines and mercury.

Case 2.—A physician, aged 40, was seen in the latter part of 1922 on account of a lesion of the septum of ten days' duration, which was suspected of being an early chancre. The patient indistinctly remembered having picked his nose about a month previously, after examining a group of patients in an industrial establishment.

On examination there was found a round, shallow, bright red erosion of the anterior part of the nasal septum, about 0.75 cm. in diameter. A small, firm, submaxillary gland was palpable on the same side. Dark field examination revealed *Spirochaeta pallida*. The Wassermann test was negative. Treatment was promptly instituted and continued for a year, with an apparent clinical cure. The intranasal lesion healed without perforation. Symptoms or signs have been absent over a period of four years, and repeated Wassermann tests have been negative.

Case 3.—A man, aged 45, unmarried, was referred in January, 1924, for the diagnosis of a cutaneous eruption which had been present for two weeks. He stated that he had noticed a sore in his nose for six weeks, and had been treated locally by a well known rhinologist for an "ulcer." The glands in the right cervical region began to enlarge three weeks before.

Examination revealed a crusted ulcer on the right nasal septum, measuring a little less than 2 cm. across, with an indurated cartilaginous border and considerable edema of the surrounding mucous membrane. There was a massive bubo in the right submaxillary region. The trunk, face and extremities showed a maculopapular syphilid. The diagnosis was confirmed by a positive dark field examination and blood test.

COMMENT

The foregoing cases are illustrative instances of primary syphilitic infection of the nasal septum. In two, the diagnosis was not made until the supervening glandular swelling and the exanthem made it self-evident. In one case, the correct diagnosis was made by the examining rhinologist, and confirmed by finding *Spirochaeta pallida* in the early seronegative stage, the ideal time for abortive treatment. The most important point in the early diagnosis of a hard chancre of the septum is the erosion or ulceration with indurated border on the septal surface, which bleeds easily but does not cause perforation. The surrounding mucous membrane may be edematous, clogging the nose and producing some discharge. There may also be swelling of the outer surface of the nose, and at times pain radiating to the teeth, eyes and forehead, as pointed out by Menzel.[1] The discrete, painless submaxillary bubo is an important diagnostic point, as this does not occur in the commoner tertiary lesions within the nose.

The differential diagnosis must exclude the various forms of late syphilis, particularly the circumscribed gumma of the septum with crater-shaped ulceration and perforation; tuberculosis, either in the form of the solitary tuberculous ulcer or an ulcerating lupus vulgaris, and epithelioma involving the septum. In rare instances, a rhinoscleroma may have to be ruled out.

In the literature on syphilis, scant mention is made of the possibility of primary intranasal syphilis, but cases are on record of infection carried by fingers, handkerchiefs, towels and sponges. Rhinologists, who are the first to see these lesions, should recognize the necessity of making the diagnosis as early as possible, and the importance of dark field examination in suspicious ulcers or erosions of the septum.

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[6] Brown, Wade; Van Allen, C. M., and Pearce, Louise: Personal communication to the authors.

[1] Menzel, K. M.: Syphilis of the Nose and Nasopharyngeal Space, Wien. med. Wchnschr. 76: 457, 1926.

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THE TREATMENT OF LOBAR PNEUMONIA IN A GENERAL HOSPITAL*

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Since November, 1925, all patients with lobar pneumonia admitted to the Mount Sinai Hospital have been studied by a pneumonia commission.

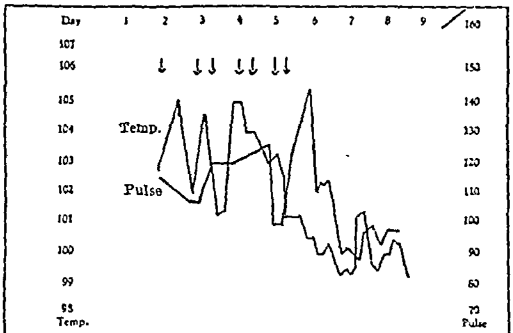
The "pneumonia routine" employed in this series consisted of the following orders: (1) in bed; (2) forced fluids (milk, 1,000 cc., fruit drinks, broth, coffee, tea); (3) sponge for 103 F.; (4) enema daily; (5) turpentine stupes when needed; (6) tincture of digitalis, 1 drop per pound on admission, and 45 minims daily thereafter; (7) morphine sulphate, one-fourth grain (16 mg.) on admission; (8) blood pressure daily; (9) leukocyte count and differential determination every two days; (10) blood culture; (11) sputum for culture and typing as soon as obtainable. As an expectorant, when needed, anisated spirit of ammonia, 30 drops every two hours, was used. For pain or restlessness or harassing cough, codeine sulphate, 1 grain (0.065 Gm.) hypodermically was used, to be repeated in four hours if necessary. If there was cyanosis, oxygen was administered by the Barach apparatus, one hour on and one hour off. If ileus developed, the patient was to be stuped, then to receive an enema of oxgall, turpentine and asafetida; and finally, if necessary, pituitary extract was to be administered intramuscularly. Immediately on admission, one member of the commission was to come to the hospital and administer the Huntoon pneumococcus antibody solution (H. K. Mulford Company), intravenously, the dose at first being 50 cc., but in later cases 100 cc. This was administered with the apparatus supplied by the Mulford Company, and it was given warmed and quite slowly. Throughout the course of the illness, the patient was seen usually three times a day by some member of the commission. The blood pressure, lung signs, heart diameter, pulse, temperature and respirations were charted on the form chosen for these patients. The pneumococcus antibody solution was repeated every six hours, unless the temperature was below 101 or 102 F. Special nursing was not used except when specially indicated.

No simultaneous control series was run. The uncontrolled variables, such as (1) age of the patient, (2) day of admission, (3) type of invading organism and (4) degree of bacteremia, render a "control" series a remote gesture. In the last analysis the results of therapy in lobar pneumonia will rest a great deal more on clinical judgment than on statistics.[1]

In all, fifty-six patients were seen, of whom nineteen died (34 per cent). For the purpose of comparison, the gross pneumonia statistics of the hospital were studied for a ten-year period preceding this year, omitting the year of the influenza epidemic. In 1924, seventy-three patients were treated, with a mortality of 16 per cent; in 1923, fifty-six patients, with a mortality of 32 per cent; in 1921 and 1922, 108 patients were treated, with a mortality of 20 per cent.

In our series were thirty-nine men and seventeen women. Twelve men died and seven women, the ratio in the two sexes being almost exactly equal.

Twenty-five patients were below the age of 40, and these had a mortality of only 16 per cent. The remaining thirty-one were over 30, and the mortality in the older patients was almost 45 per cent, no striking variations being noted in the various decades.



Day of illness	2	3	4	5	6	7	8	9
Syst. B. P	120				116		118	
Diast. B. P	66				62		46	
R. L. D.	?							
L. L. D	10							
C. T. D								
Bl. Cult.	Negative							
W. B. C.	18.5				16.5			
% Polys.	92				80			
Myelocytes					2			
Cyanosis		/	/	//	/			
Resp.	32	28	27	35	43	31	30	
Lobes involved	1	1	2	2	2	2		
(R. U., M, L. L. U., L)	RL	RL	RL RU	RL RU	RL RU	RL RU		
Stage of pneu (C H R)	C	H	H	H				
Pleurisy	/	//	/	/	/			
Urine amount		1800	1450	1900		445	730	
Stool								
Enema		1	1	1	1			
Distention (0 - ++++)	0	0	0	/	0			
Jaundice	0	0	0	0	0			
Delirium	0	0	0	0	0			
Restlessness	0	/	/	/	0			
Total Huntoon, 1292,	50	250	450	650				
Total Digitalis	150	195	240	275				

Hiccough
Complications (Pericard.
Empyema
Menis
Pneu
O. M.
Arth.)

Anatomical Defects
(on admission)

Sputum:- Pneumococcus Type iv (four).

Method of recording observations.

The average day of admission of the patients who lived was three and nine tenths, and of those who died, four days. No patient was admitted on the first day of illness; thirteen patients were admitted on the second day, of whom ten recovered and three died (23 per cent); on the third day, sixteen, of whom ten recovered, and six died (37 per cent), and on the fourth day, eighteen, of whom twelve recovered and six died (33 per cent). Of five patients admitted on the fifth day, one recovered and four died (80 per cent); of four admitted on the sixth day or after, all recovered.

Twenty-eight patients had a single lobe involved, and of these eight died (28 per cent). Of twenty-eight with more than two lobes involved, the same number died. When there was a double pneumonia, i. e., involvement on both sides, the mortality was about the same. Those who had a right lobe involved presented a lower mortality (22 per cent), than those who had a left lobe involved, of whom 55 per cent died. When spreads occurred after admission the mortality was very much higher (over 60 per cent), and when the spread crossed into the other lung the mortality was over 66 per cent. It seems apparent that left lobe involvements are more dangerous than right; and that, when a spread occurs while the patient is under observation, the prognosis is particularly bad, and more so if the spread is in the opposite lung from that originally involved.

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[1] Originally we planned to use the specific therapy only in patients who entered early in the course of the disease. Afterward, owing to the small number of early cases admitted, the scope of the therapy was extended to include all the patients admitted, with the hope that an occasional late case might be benefited.

Observation of the effect of the type of invading organism showed that eleven patients had a type I infection. Of these eight recovered and three died, a mortality of 27 per cent. Of nine patients with type II, five recovered and four died (44 per cent); of six with type III, five died (83 per cent); of seventeen patients with type IV, thirteen recovered and four died, giving a mortality of 23 per cent. Thirteen patients were not typed, and of these eleven recovered and two died. Once again we have evidence of the extreme virulence of this type III organism. The untyped cases all gave negative blood cultures, and were naturally less virulent infections than the others.

Forty-one patients had sterile blood cultures, and of these nine died, a mortality of 22 per cent. Of fifteen patients with positive blood cultures, ten died. Bacteremia obviously signifies a more serious infection and a more unfavorable prognosis.

Of fourteen patients who showed myelocytes in the circulating blood, eight died (52 per cent). Myelocytes were usually associated with a low total white count.

Of the complications encountered, three patients, or 5 per cent, developed empyema, and in the fatal cases practically all developed edema of the lungs. No other complications were observed.

Of associated conditions, one patient with diabetes and two with arteriosclerosis died; two with positive Wassermann reactions recovered; one girl with a mitral stenosis died; two gravid women made striking recoveries. Three men with a history of chronic alcoholism died. Of the patients who recovered, two had chronic changes in the lungs, and it seemed very likely that both really had a pneumonia superimposed on the chronic condition, rather than the contrary.

RESULTS OF SPECIFIC THERAPY

Of particular interest is the analysis of the results of the injections of the pneumococcus antibody solution, which was supplied to us through the courtesy of Dr. F. M. Huntoon of the H. K. Mulford Company.

Number of Injections.—In the group reported, 215 injections were made, and an average of 350 cc. was given to each patient treated. A total of 18,800 cc. of the solution was employed. The largest amount given to any patient was 700 cc., and the greatest number of injections was seven. Certainly an ample amount of the solution was used to have produced a specific therapeutic effect.

Reactions.—Of the 215 injections made, 144 did not produce any reaction, and seventy-one were associated with a reaction. Of these reactions the vast majority consisted simply of a chill and slight rise in temperature, of rarely more than 3 degrees.

One death occurred as the direct result of the exhibition of the specific substance. This was in patient 45, from the use of lot 90411. A single administration of 100 cc., with the usual careful technic, resulted in a hyperpyrexia and a death which seemed unquestionably the direct result of the reaction. The majority of the patients were given lot 84053, and later lots 91972, 98465 and 1292.

Clinical Effects.—With regard to the clinical effects observed, the patients could be divided into six classes. Of these, group 1 consists of nineteen patients who died. In this group are included two with arteriosclerosis, three with a history of alcoholic addiction and one with diabetes, in all of whom the outlook was necessarily unfavorable. Certainly in none of the remaining cases could any favorable effect be seen from the specific substance. In group 2 are nineteen patients who had absolutely no permanent effect from the administration of the solution. All had an alteration in the temperature chart, in that for a few hours after the administration of the serum there was a drop in temperature and occasionally a lower respiratory rate. In none of these patients, however, was the effect permanent; in none of these instances did the temperature reach normal before the expectancy, and in none of these cases was the commission impressed with any clinical improvement. In group 3 are five patients who were desperately ill and who recovered, but in whom the recovery seemed not to be related to the administration of the substance. In all these patients (4, 39, 44, 57 and 58) the substance was used and discontinued from twenty-four to forty-eight hours before improvement was noted; later than one would expect to obtain a specific therapeutic result. In group 4 are three patients (2, 9 and 33) in whom some complicating factor rendered it wiser to exclude the result from the statistical study. In group 5 are seven patients in whom a real and seemingly specific result was observed. In these seven instances an immediate, striking and permanent effect was noted. Five of these patients were not treated until the fourth day, and two on the third day of the disease. None of these patients had a positive blood culture, so that they were presumably less seriously ill than many of the other patients in the series. Four had a type IV pneumococcus infection and two were not typed, in both of which groups the mortality was less than in any other. One patient had a type I infection. The average amount of the substance used in these instances was 200 cc., and usually not more than two injections were made. It seems, then, that the patients who reacted favorably were the least seriously ill, and that the response occurred from the administration of less than the average number of injections. In group 6 are seven patients in whom a questionable beneficial result was obtained. Two of these seven patients were admitted late in the disease, one on the eighth day and the other on the twelfth day, so that while a prompt crisis occurred, no inference concerning the specificity of the result was absolutely justified. Of the other five patients, three were admitted on the third day and two on the second day. In these patients a crisis or defervescence was observed on the fifth or sixth day. One of these patients had a type I and one a type II infection. The other five were not typed, and consequently were less seriously ill than the average patient observed. None had a bacteremia. Nevertheless it was the clinical impression that they were benefited by the injections.

An impartial summary of the effect of the pneumococcus antibody solution is somewhat difficult to give. Certainly one patient died as a result of toxicity in one of the lots of the solution. The gross mortality was not lowered. In the cases with a bad prognosis, such as a type III, all with bacteremia and all those with associated conditions such as alcoholism or atherosclerosis, no beneficial results were observed, and it is in this type of case that a specific substance is most needed. In only fourteen individuals, all with sterile blood cultures and usually of the type IV or untyped classifications, could any therapeutic result be claimed, and in seven of these fourteen the result was open to question. Seven results, however, were brilliant, and it is interesting to note that in the seven brilliant results the substance was not administered until the third or fourth day, and then in relatively small amounts, so that the failure in the other groups seems less likely to be related to the day of admission or the amount of substance used. To investigate this point further, we took out for separate study all patients admitted within the first seventy-two hours of the disease. In this group were twenty-nine patients, or about half of the total. Nine deaths occurred, or 31 per cent, and in only five of the patients (17 per cent), could a definite therapeutic effect be noted, so that there seemed to be very little difference between the effects in the early group and the late group.

SUMMARY

Fifty-six patients with lobar pneumonia were treated by a regimen that included the administration of the *pneumococcus antibody solution*. No constant specific therapeutic effect was observed. Here and there an isolated observation pointed to the possibility of a specific effect. These results were independent of the nonspecific chill, and while they are encouraging, we feel that they are not sufficient to warrant the advocation of the routine use of this substance in the treatment of lobar pneumonia in a general hospital.

MALABSORPTION IN DEFICIENCY DISEASES

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In discussing deficiency diseases, McCarrison[1] says:

> The term "deficiency diseases" is customarily applied to a group of maladies which are caused by the lack of one of the accessory food factors. This application, however, is too restricted and should embrace disorders also due to faulty and unbalanced food. The vitamins have been largely responsible for such a narrow outlook on the diseases which are either favored in their origin or initiated by an insufficient supply of these substances. By speaking of the antineuritic vitamin the attention is drawn to one system of the body, while others are ignored. But in experimental animals on a deficient diet without vitamin B there is loss of appetite, impaired digestion, diarrhea, colitis, unhealthy skin, low temperature, slow respiration, cardiovascular depression, progressive anemia and asthenia, long before nervous symptoms are produced. Do not these form a disease syndrome, in children especially, which is as familiar as its cause is unrecognized?

Jackson[2] says:

> The peculiar effects of the various types of inanition constitute the characteristic syndromes of the corresponding deficiency diseases, such as pellagra, xerophthalmia, rickets and scurvy.

Hopkins[3] says:

> But the clear differences in function demonstrated by the differences in the effects of (vitamin) deprivation have constituted the main belief in their diversity. In studies in metabolism, however, it is well to remember that chemical events in the organism, though they be more or less isolated experimentally, form an organized whole. No one process in the body can be rendered abnormal without ultimate effects on other processes.

Incomplete food in experimental animals causes metabolic disorders, and there is a failure in the transfer of food to the cells of the body. Diarrhea or constipation and malabsorption are the first signs of the metabolic disorders. These early and slight deviations from normal nutrition are not generally recognized, but they continue until changes occur in the tissues and then a deficiency disease is readily recognized. Similarly, in human deficiency diseases incomplete and *faulty food may cause metabolic disturbances*, changes in the intestinal rate, and general disorders of the body for months and perhaps years before a diagnosis can be made. In both cases the oversight appears to be due to a failure to understand and apply the indexes of normal absorption.

As one of us has been adjusting diets according to the absorption in producing scurvy, rickets and polyneuritis in animals, and the other has been educating patients with some of the metabolic disorders with regard to how and what to eat to get normal absorption in the restoration and control of health, we wish to present the evidence so far recorded that relates to absorption and the deficiency diseases, and to point out that incomplete and faulty food primarily produces intestinal indigestion and malabsorption.

ABSORPTION AND ANABOLISM

Food is consumed to nourish the cells of the body. Complete and proper nourishment, however, is a very complex and delicately adjusted process. The alimentary canal of every animal forms a highly perfected apparatus for the mechanical mixing, the chemical reduction, and the absorption of its contents. These processes are nicely correlated; and the bodies that generally absorb the digested products from the normal action of the nutritive apparatus develop normally and are maintained in health. The digested products entering the body are too complex to understand or analyze at present, but as a form of the feces, a passage of a meal through the digestive tract or an intestinal rate are indexes of normal absorption. These indexes should serve as valuable signs in improving the anabolic processes and the restoration and control of health. A third indication of absorption should be made on the weight of the body. Normal absorption, however, appears to be somewhat limited, and is dependent not only on a diet containing the accessory, but also one devoid of the faulty, food factors. This assertion is made from an understanding of the peculiar yet apparently normal action the proximal colon exercises in the control of nutrition. About a third of the intestine forms a secondary digestive pouch by the action of physiologic constriction rings. The action of these rings is evidently brought about with a complete, properly proportioned and prepared alimentary mixture only when the demand for nourishment is greater than the supply. For the same reason, waves of antiperistalsis course over this portion of the intestine and appear to bring about complete digestion and absorption of vegetable foods. But this mechanism by which the carbohydrate metabolism seems to be completed also forms the intestinal contents into discrete masses or units, which are readily observed in the normal feces. Thus, this complex and sensitive mechanism essential for normal nutrition exercises a control not only over the kind but also over the amount of food consumed.

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[1] McCarrison, Robert: Studies in Deficiency Diseases, London, Frowde and Hodder, Stoughton, 1921, pp. 3-5.

[2] Jackson, C. M.: Inanition and Malnutrition, Philadelphia, P. Blakistons' Son & Co., 1925, p. 5.

[3] Hopkins, F. G.: Brit. M. J. 2: 691 (Oct. 20) 1923.

An understanding of the restricted limits of normal absorption and assimilation leads to the recognition of two subtle and vaguely symptomatic types of malabsorption. In one type there is a loss of appetite, and the food ingested is insufficient to supply the demands of the body and leave a residue for excretion. As a result there is an abnormal retention of the intestinal contents, and dejections are infrequent and scanty. Patients with this type of malabsorption usually resort to cathartics; the metabolic disorder is made worse, and the bodily functions are still further impaired. The disorder, however, is not due to the digestive apparatus, for when more food is consumed and cathartics are eliminated, the digestion is improved and after a while daily dejections become regular. Then as the functions of digestion and absorption approach normal, a sign of the improved action is manifested by a healthy hunger. In the other type sufficient food is consumed, but on account of being incomplete or faulty it passes too rapidly through the digestive tract. A report on the variations of the intestinal rate has already been published.[4] But here, too, the metabolic disorder is due to the ingested material and not to the nutritive apparatus. Graphic illustrations of these two types of malabsorption are shown in figure 1.

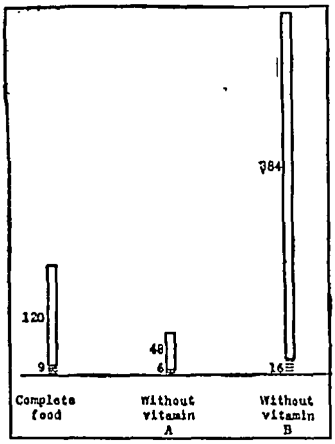

Fig. 1.—Graphic illustrations of intestinal rates in rats made by observing the first and last appearance of charcoal in the feces in hours after ingestion. The first column of nine to 120 hours represents normal absorption in animals consuming a complete food; but in the second of six to forty-eight hours there is malabsorption from a diet without vitamin A, and in the third an abnormal retention of sixteen to 384 hours from food without vitamin B. (The diagrams were copied from Gross.)

MALABSORPTION IN ANIMALS WITH DEFICIENCY DISEASES

The immediate effect of incomplete food on digestion and absorption in animals, as shown by loss of appetite, vomiting, diarrhea, dysentery, asthenia and decreased weight, has been emphasized by McCarrison.[5] A somewhat more detailed study of malabsorption in animals has been made by Gross.[6] He mixed charcoal with the food of rats and noted the time it took to appear in and disappear from the feces. With properly fed animals the marker was first seen in nine and last seen in 120 hours. Under these circumstances, digestion and absorption are complete, and uniform and firm fecal units or scybala are dejected daily. But animals without vitamin A ate voraciously, and the charcoal was seen only between six and forty-eight hours. With the omission of an essential food and an absorption time of less than half the normal, the development of a deficiency disease from malabsorption is obvious. On the other hand, animals without vitamin B lost their appetite and ate very little food. The diminished intake apparently had a marked influence on absorption. Normally nourished rats deject fifteen or twenty well formed fecal units a day; but under the influence of vitamin B deprivation and insufficient food, only two or three fecal units were dejected; and there was such a demand for the small amount of nourishment that there was abnormal retention, and the charcoal was dejected between sixteen and 384 hours after ingestion. An absorption of this kind is somewhat similar to constipation brought about from too little food and an insufficient residue to form daily dejections. These intestinal rates are graphically shown in figure 1.

The intestinal rate of animals on a vitamin C deficient diet was not studied with charcoal. Another index of absorption, however—the fecal unit—dejected by guinea-pigs fed a scorbutic diet by one of us (P. R. H.) indicates a malabsorption somewhat similar to that of the animals without vitamin A. Illustrations of these fecal units beside the normal are shown in figure 2. They were recovered from the animals used for the investigation of scurvy by Wolbach and Howe.[7] The symmetry of form, the equality in size, and the firmness of the normal are in great contrast to the irregularity of form, variation in size, rough surface and softness of the abnormal fecal unit. Furthermore, as these discrete masses are formed by the constriction rings that limit the proximal colon, they are an indication of intestinal indigestion and malabsorption in this delicately adjusted portion of the digestive apparatus.

Malabsorption in animals without vitamin C has also been described by Veeder:[8]

> The bowels may be either loose or constipated. Monkeys in whom I produced experimental scurvy suffered from continuous diarrhea, and there is no chemical basis whatever for the belief that scurvy is due to the absorption of toxin from a colon impacted with feces.

Still further evidence of this relationship has been observed recently by Mellenby:[9]

> Another condition which commonly develops in puppies when fed on diets containing an excess of cereal and a deficiency of fat soluble vitamin is diarrhea. Diarrhea may appear soon after the diet begins and before there is obvious bone deformity. The better the puppies are fed during the preexperimental period, the longer time will elapse before the defective diets are accompanied by diarrhea. This statement is definitely true of rickets both as regards the prenatal and postnatal feeding of the mother, and it probably applies equally to catarrhal conditions of the alimentary tract. It may also explain the variable susceptibility of young animals to catarrhal and inflammatory conditions of the respiratory tract.

The form of the feces as an index of absorption has been generally used by one of us (P. R. H.) to produce deficiency diseases in animals. Extremely incomplete or badly proportioned diets may produce such a severe diarrhea that the animals soon die without well defined changes in the tissues. By observing the feces, however, the diarrhea may be checked at any time with complete food, and thus it is possible by alternating the incomplete with the complete feeding to bring about the desired deficiency disorder.

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[4] Burnett, F. L.: Variations of the Intestinal Rate, J. A. M. A. **85**: 1777 (Dec. 5) 1925.

[5] McCarrison, Robert: Faulty Food in Relation to Gastro-Intestinal Disorder, J. A. M. A. **78**: 1 (Jan. 7) 1922.

[6] Gross, L.: The Effect of Vitamin Deficient Diets on Rats, with Special Reference to the Motor Functions of the Intestine, J. Path. & Bact. **27**: 27 (Jan.) 1924.

[7] Wolbach, S. B., and Howe, P. R.: Intercellular Substances in Experimental Scorbutus, Arch. Path. & Lab. Med. **1**: 1 (Jan.) 1926.

[8] Veeder, E. B.: The Practice of Medicine in the Tropics, London, Henry Frowde, 1923, p. 2005.

[9] Mellenby, E.: Diet and Disease, Brit. M. J. **1**: 515 (March 20) 1926.

MALABSORPTION IN HUMAN DEFICIENCY DISORDERS

A. *Rickets.*—Without generally recognized signs of normal absorption in the form of the feces or the intestinal rate, observations on malabsorption in human deficiency diseases represent only extreme conditions. But in spite of this fact diarrhea and digestive disturbances are frequently referred to.

Experimental and clinical studies on rickets have proved that the disease is due to incomplete or faulty food. The pathogenesis of the disorder, however, is not understood. Howland[10] writes:

> The present evidence is all in favor of the view that defective absorption is the most important factor. . . . With cow's milk the absorption and retention of mineral elements is less than with mother's milk. . . . The absorption of phosphorus is very poor when the fat in the diet is diminished. . . . Normally most of the phosphorus is excreted in the urine, but in rickets the larger part may be excreted by the bowel. . . . The effect on calcium absorption is similar but not so plain because most of this salt is excreted by the intestine.

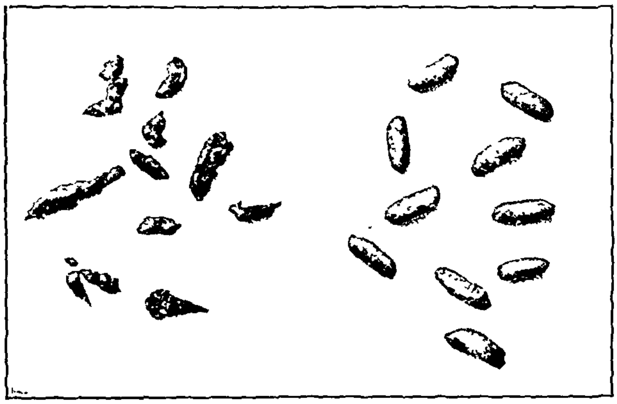

Fig. 2.—The feces of guinea-pigs. On the right are shown the firm, equal and smooth masses of normal absorption, but on the left are the soft and formless feces of intestinal indigestion and malabsorption of animal consuming food without vitamin C.

On the other hand, in a clinical study of 533 patients by Mann,[11] the conclusion is reached that fat deficiency or carbohydrate excess are the predisposing causes in almost half of the rachitic patients. Furthermore, in some of these cases gastro-intestinal disturbances were pronounced for various periods, and sometimes recurrent between three and eighteen months. The symptoms were intolerance for solid food, vomiting, colicky pains and gas, and diarrhea with undigested food and mucus in the stools. A somewhat similar observation has been made by Marfan[12] in which he says that "flatulence, vomiting, and diarrhea with foul stools, may precede the distinctive signs of rickets."

In the treatment of rickets various measures, as cod liver oil, quartz lamp, reduced food and muscular exercises, have been employed. The most logical, however, appears to be the combined dietetic and medicinal treatment recommended by Jundell,[13] in which the amount of food is somewhat reduced. Rachitic babies are generally overweight, and thus suggest that fat has accumulated at the expense of the normal tissues. By a reduction of food, the colon is apparently made a more useful part of the digestive apparatus and the absorption becomes more nearly normal.

B. *Beriberi.*—The study of human beriberi has not been very comprehensive or detailed, as it generally occurs in the semicivilized regions that are somewhat removed from centers of medical investigation. However, Veeder[14] remarks that:

> The onset is generally insidious. For days or weeks the patient is languid and readily fatigued. . . . At the same time gastro-intestinal disturbances are common and are manifested by loss of appetite, diarrhea or constipation and discomfort after eating, with nausea or even vomiting.

Almost simultaneously with Eijkman's experimental studies that proved beriberi to be of dietary origin, a clinical investigation was being carried on by Wright[15] on the pathology of the disease. In this study he found that alimentary disturbances were the earliest and the commonest; and although he does not specifically mention diarrhea or dysentery in many of the patients, indigestion is frequently referred to. In all the patients he found a gastroduodenitis to precede, by a few hours or days, the determining symptoms of sensory or motor paralysis.

C. *Scurvy.*—Many of the best descriptions of scurvy are found in the records of military campaigns. Napoleon's surgeon general in Egypt, Baron De Larrey[16] writes:

> In the first place, the soldier is distressed, he loses his appetite, the countenance becomes pale, respiration is difficult and the pulse slow and irregular, the bowels become constipated, the urine is secreted in small quantity, and is loaded with earthy matter. The last stage of scurvy presents a most afflicting aspect; to the febrile paroxysms, succeeds a general depression; the ulceration of the gums extends deeply toward the alveoli . . . the teeth become loosened, and are often accompanied with hemorrhage difficult to be arrested. The sphincters of the anus become relaxed, and diarrhea, which often degenerates into a dysenteric and colliquative flux, becomes established. . . . The pulse becomes weaker, wiry, and disappears insensibly. The individual has frequent attacks of syncope. The black spots which were ecchymoses assume the character of a true gangrene. Dropsy appears, the vital functions cease, and the patient slowly expires.

Another description of this deficiency disease is taken from records[17] of the English army in Turkey:

> A detachment of Europeans stationed at Meanday were dieted for several months on fresh beef, in unlimited quantities, biscuit, with the usual allowances of rum and rice, but they were not supplied with fresh vegetables or any substitute for them. At first the men looked robust and healthy, but after a lapse of three months scurvy made its appearance; spongy gums, purple blotches on the extremities, hemorrhagic dysentery and profuse discharges of blood from the stomach and bowels marked the onset of the disease. Lime juice was procured and issued freely and the scurvy rapidly abated.

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[10] Howland, John: The Etiology and Pathogenesis of Rickets, Medicine **2**: 349 (Nov.) 1923.

[11] Mann, H. C.: Rickets, Medical Research Council, Special Report Series 68, p. 192.

[12] Marfan, A. B.: Le rachitisme sa pathogenie, Paris, 1911.

[13] Jundell, I.: Acta Paediat. **4**: 204, 1925.

[14] Veeder, E. B.: The Oxford Medicine, Oxford University Press **4**: 273.

[15] Wright, H.: The Classification and Pathology of Beri-Beri, Inst. for M. Research Fed. Malay States, London, John Bale's Sons and Danielson **2**, 1903.

[16] De Larrey, quoted by Hammond, W. A.: Report of the Associate Medical Members of the Sanitary Commission on Scurvy, Washington, McGill-Witherow, 1863, pp. 6-9.

[17] Crawford, D. R.: Medical and Surgical History of the British Army Which Served in Turkey and the Crimea **2**: 179.

Still another description[18] of scurvy came from the Crimean War:

> Scorbutus prevailed under an epidemic form, and was rarely witnessed without being complicated with diarrhea, intermittent and remittent fever, bronchitis, pneumonia, etc. These complications were the most direct causes of the mortality which scurvy produced.

A military surgeon[19] in the United States Army decsribes the disease as follows:

> Among the prodromata of scurvy diarrhea is sometimes one of the symptoms. The appetite is usually good and sometimes voracious, but various dyspeptic symptoms may be present. Later constipation is the rule, but diarrhea may occur of a dysenteric type in which the stools consist largely of partially digested food and bloody fluid.

D. *Pellagra.*—Observations in malabsorption in pellagra are somewhat more detailed and extensive. The descriptive phrase of "diarrhea, dermatitis, delirium, and death," applied by Marie[20] to this disease, is singularly appropriate.

A good description of the disease is given by a physician[21] of an asylum. Soon after admission, the patient developed insomnia and severe diarrhea. Ptyalism was noted. Acute exacerbations of the diarrhea occurred, and he became emaciated. In six months the skin on the dorsal surfaces of his feet became a somber brown, suggesting purpura. A month later the purpuric rash involved his hands. The diarrhea persisted and was incorrigible at night, in spite of treatment. Later the limbs became edematous; the diarrhea did not abate; he became exhausted and died.

Malabsorption in pellagrins has frequently been noted by Goldberger and Tanner.[22] In one of their recent studies, the terms "bowels tended to overactivity," "bowels slightly loose," and "some looseness of the bowels" were used in almost all the case histories.

The evidence of malabsorption presented by Denton[23] is somewhat more detailed and conclusive. In this work, detailed histories were obtained and very exact postmortem examinations made of twelve pellagrins. Before admission to the hospital, all the patients had diarrhea, which is described in the following terms: "diarrhea with four or five loose movements daily," "diarrhea and occasional vomiting," "incontinence of urine and feces," "constant diarrhea with streaks of blood in stools," "diarrhea became worse and patient died seven days after admission."

Another description of malabsorption in pellagra is given by Boyd.[24] The alimentary system of the early cases showed definite changes. In forty-five out of a hundred, there were complaints of digestive disturbances in the form of anorexia with burning and flatulence after food, but the most common complaint was of diarrhea, usually of an intermittent type. In advanced cases, the resistance of these subjects is lowered by malnutrition, the secretion of hydrochloric acid in the stomach is diminished or absent, and thus they lose the natural protection against invasion in the alimentary tract, with dysentery as the natural result.

An increase of protein in the diet of pellagrins is the most reliable measure in the restoration of health. Even Sutton[25] and others, who favor an infectious agent as a causative factor, find that "alimentary disturbances were many, and varied from slight indigestion to severe pyrosis, diarrhea and vomiting," and patients "are given a list of high protein foods and told to model their diet on it." Animal protein, however, that passes through the digestive tract rapidly is not utilized and is still outside the body. The failure of absorption may be due to other food factors. But often when the proportion of protein alone is increased, the stools become better formed and there is a gradual increase in weight as the health improves.[26]

MALABSORPTION IN METABOLIC DISEASES

In the first reference the statement was made that "the term 'deficiency diseases' should embrace disorders also due to faulty and unbalanced food." Here again, from an understanding of the restricted limits of absorption in normal nutrition, the evidence is convincing that faulty and unbalanced food acts somewhat like food without the accessory factors in producing intestinal indigestion, malabsorption and the metabolic diseases. These intestinal disorders common in civilized people are vaguely symptomatic and without signs unless the indexes of normal absorption are observed. In fact, a patient with intestinal indigestion seems to become "conscious that all is not well with him, there is a loss of that feeling of well being that accompanies the healthy state. Disagreeable sensations arise, at first vague but later becoming more definite, and they may become so urgent that he seeks advice. Still no evident sign of disease may be perceived on the most careful examination. By and by the disease, being situated in some organ or tissue, changes the constitution of the part, so that its presence is now recognized by a physical sign, when the clinical methods usually reveal its character. . . . The recognition of disease after it has advanced so far as to have damaged the tissues, a stage which in rare instances does not permit of our attaining one of the chief aims of medicine—cure."[27]

For a long time, many disorders of the body have been supposed to be caused by a transfer of food to the tissues of the body, and have been generally referred to as metabolic diseases. Up to this time, the processes by which nutrient molecules reached the cells have been too complex to understand and adjust. But now, if the digestive tract is thought of as a highly perfected nutritive apparatus, which is so delicately adjusted that many factors have to be regulated and controlled so that the ailment completes its cycle of digestion and absorption, one may at least have a conception of the normal anabolic processes and nutrition. This conception is based entirely on the fact that there is a normal form of the feces and a normal intestinal rate; and these are indexes of normal absorption. The normal feces are formed by the proximal colon, and this peculiar portion of the digestive apparatus is the most difficult to get in action. By the recognition and regulation of this essential mechanism, not only may the early and insidious disorders of intestinal indigestion and metabolism be determined but the continued observation of its action and dietary adjustment are required for normal nutrition. From this point of view, it is imperative for the previously deficient and diseased tissue to receive the products of complete digestion generally in order to maintain its integrity and prevent another attack.

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[18] Baudens: La Guerre Crimea, etc., Paris, 1858, p. 219.

[19] Howard, C. P.: Scurvy, Oxford Medicine, Oxford University Press **4**: 253.

[20] Marie, A.: Pellagra, translated by Lavinder and Babcock, Columbia, S. C., the State Company, 1910.

[21] Babcock, J. W.: Tr. Nat. As. Study of Pellagra, R. L. Bryan Company, 1914.

[22] Goldberger, Joseph; and Tanner, W. J.: A Study of the Treatment and Prevention of Pellagra, Pub. Health Rep. **39**: 87 (Jan. 18) 1924.

[23] Denton, J.: The Pathology of Pellagra, Am. J. Trop. Med. **5**: 173 (March) 1925.

[24] Boyd, F. D.: J. Roy. Army M. Corps **33**: 513-515 (July-Dec.) 1919.

[25] Sutton, I. C.: Pellagra, Am. J. M. Sc. **172**: 374 (Sept.) 1926.

[26] Goldberger, Joseph: Personal communication to the author.

[27] MacKenzie, J.: The Future of Medicine, Oxford Medical Publications, 1919.

This assertion is based on the fact that relatively little is yet known about normal nutrition; that the treatment of diabetes mellitus, the best studied metabolic disorder, is largely nutritional, as by reducing the amount of food and increasing the protein a more nearly normal action of the colon appears to be brought about and the anabolic processes are improved; and lastly, that in a nutritional study made by one of us[28] of two metabolic diseases of the skin, eczema and psoriasis, intestinal indigestion and malabsorption were invariably caused by eating too fast and too much; eating between meals, consuming too much fat, sweet, highly spiced food, and fruit; or by frequently taking laxatives, oils and enemas.

Intestinal indigestion has always been a vague clinical condition, but when the determining factors are the soft and formless feces and a rapid intestinal rate, the disorder is readily and exactly identified. The patients with eczema or psoriasis who adjusted their ways of eating to the requirements of the normal action of their own complex and delicately adjusted digestive apparatus were relieved of intestinal indigestion after a while and acquired normal absorption, and the skin received the nutrient molecules from the food that were essential for a healthy condition. At this time a few of the patients thought they were cured and again went back to their faulty ways of eating, which led to intestinal indigestion, and new lesions of the skin appeared. From this fact it was evident that the health of some persons had to be controlled to cure eczema and psoriasis. Consequently, most of the patients with these metabolic skin diseases are not only educated to eat according to the action of their own proximal colon in order to acquire normal absorption, but are also requested to return at intervals of a month or two and bring in a health report. The purpose of this report is to keep a check on the action of the nutritive apparatus; it should contain a record of the food, time spent at meals, the time and kind of dejection, and a determination of the intestinal rate during a week. If the feces have been generally normal, the intestinal rate is about sixty-two to 134 hours, the normal weight of the body is maintained, and the skin continues healthy; if not, further dietary adjustments are made. Graphic illustrations of the intestinal rate of some of the patients with intestinal indigestion and malabsorption in the early course of treatment, and later with normal absorption in the control of health, are shown in figure 3. Accordingly, from these facts the only cure of these metabolic skin diseases is the control of health.

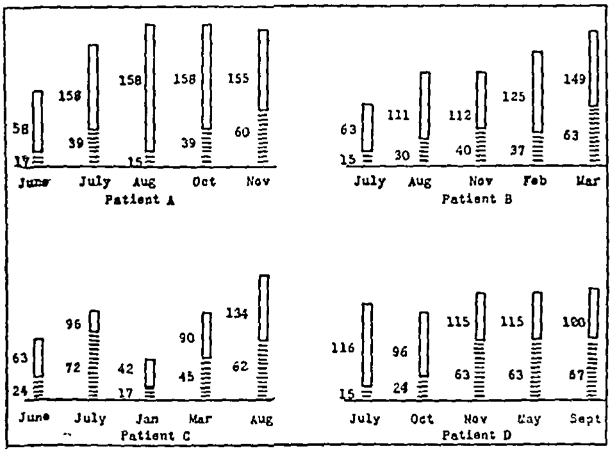

Fig. 3.—Intestinal rates of four patients with skin diseases made by observing the first and last appearance of seeds in the feces in hours after ingestion: At first these patients have a rapid rate, intestinal indigestion and malabsorption, but after a few months of treatment many get their absorption within the presumably normal limits, and then the skin begins to get the nutrient molecules from the food that are essential for maintaining health. Patient C got a healthy skin in November, thought he was cured, and again ate carelessly; during December he had intestinal indigestion, and in January, with extreme malabsorption, new psoriatic spots appeared.

In the application of this conception of the anabolic processes, only the metabolic disorders of eczema and psoriasis have been studied and reported. These disorders, however, are sometimes associated with other diseases, as psoriasis with arthritis or iritis, and eczema with asthma. A few patients with two diseases have responded alike to this form of treatment. An independent study of health control after iritis is also being carried on, with results so far as promising as in the treatment of psoriasis. While only a few of the supposedly metabolic diseases have been mentioned, it is possible that in others, too, the only cure is relief of intestinal indigestion and normal absorption in the control of health.

CONCLUSIONS

Deficiency diseases is a term customarily applied to maladies that are caused by the lack of one of the accessory food factors, but this application is too limited. The supposedly specific nature of the vitamins is responsible for this point of view; for while incomplete food will ultimately bring about easily recognized terminal lesions, the early metabolic disorders of intestinal indigestion, malabsorption and diarrhea or constipation have not been generally observed. The oversight is due to a failure to understand and apply indexes of normal absorption: for there is a normal form of the feces and a normal intestinal rate, and these should serve as valuable signs in early and slight deviations of health. An understanding of the restricted limits of normal absorption leads to the recognition of two subtle and vaguely symptomatic types of malabsorption. In one, through a lack of appetite, insufficient food is ingested, and there is an abnormal retention of the intestinal contents. Dejections are infrequent and scanty. In the other, enough food is consumed, but because it is incomplete or faulty it passes too rapidly through the digestive tract. In both types the metabolic disorder is due to the ailment and not to the nutritive apparatus. Both types of malabsorption have been recorded by investigators of the human deficiency diseases of rickets, beriberi, scurvy and pellagra.

If the restricted limits of normal absorption are applied to the metabolic diseases, the faulty food factors of eating too fast and too much, too little food, badly proportioned diets or habitually using physic or enemas act somewhat like food without the accessory substances, in producing intestinal indigestion and malabsorption. By the recognition of a normal form of the feces, a normal intestinal rate and a normal body weight, early and slight functional disorders of anabolism can be observed and treated, and an improved state of well being maintained. Without applying these indexes of normal absorption, however, the failure in the transfer of nutrient molecules to the body may continue for years before the factors of safety in the weakest tissue are exhausted and the readily recognized and destructive changes of a definite disease are apparent.

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[28] Burnett, F. L.: Intestinal Indigestion in Eczema and Psoriasis, Am. J. M. Sc. **165**: 415 (Sept.) 1923.

HYPERMOBILITY OF JOINTS AS A SEX LINKED HEREDITARY CHARACTERISTIC *

J. ALBERT KEY, M.D.
ST. LOUIS

This is a report of what might be termed a "double jointed" family, in which the abnormal mobility of the joints is present in all the male members and is absent in all the females.

Other than an occasional brief description of a contortionist in some of the older medical journals, I have not found hypermobility of otherwise normal joints mentioned in the literature.

The term hypermobility of joints suggests the question, What is the normal range of motion in the various joints? An answer to that question presents many difficulties and will not be attempted in this paper. It can be stated, however, that there may be considerable differences in the range of motion in the corresponding normal joints of different individuals, and that, as a rule, the joints of slender persons can be moved through wider arcs than can the corresponding joints of persons of the heavy type. Also the range of motion in the joints tends to decrease slightly with advancing years.

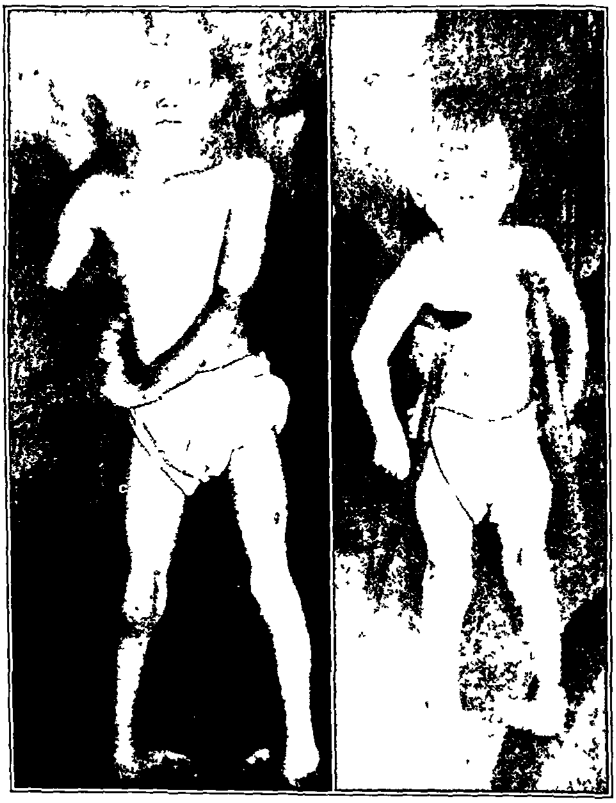

Fig. 1 (cases 1 and 2).—Two brothers on admission.

In addition to the variations mentioned, there are certain individuals, more often females, whose joints can be moved through wider arcs than normal. This is especially noticeable in the knee, elbow and finger joints, which can be hyperextended to an unusual degree. These persons are not to be regarded as abnormal but merely as normal individuals with certain anatomic characteristics that are unusual. Whether or not this slight increase above the usual range of motion in joints is hereditary has not been determined, but I have occasionally noted it in different members of the same family.

Definite abnormal mobility of joints not the seat of disease or injury, which is not due to paralysis of the controlling muscles of the joints, is a rare condition. It is a prominent feature in hereditary hypoplasia of the mesenchyme (brittle bones and blue sclera[1]), but it has not, I believe, been previously reported in a family or even in individuals in whom the other mesenchyme derivatives were apparently normal.

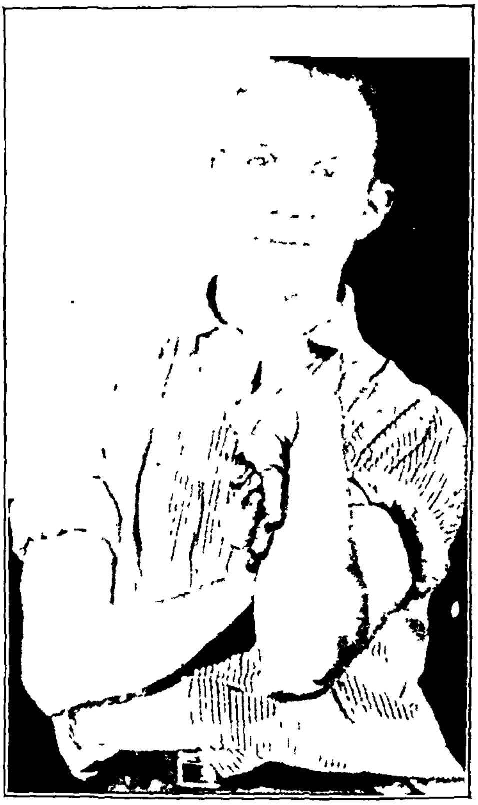

Fig. 2.—W. D., aged 17, showing range of passive flexion at the wrist.

In September, 1924, two brothers were admitted to the Shriners' Hospital for treatment of bilateral clubfoot (fig. 1). It was also noted that in both patients the range of motion in the joints was definitely greater than is normal.

REPORT OF CASES

Case 1.—V. D., a boy, aged 4, admitted, July 15, 1924, had bilateral clubfoot and was double jointed. The father was living and well; the mother had died of pneumonia. Three brothers and five sisters were living and well. Two of the brothers had bilateral clubfoot and the other brother had congenital talipes equinus. The father and all three brothers were double jointed. The five sisters were all normal. The father had nine brothers and one sister, and all were normal. The maternal and paternal grandparents were normal.

The personal history was negative. The deformities of the feet were present at birth. There had been no treatment. The abnormal mobility of the joints was also noted at an early age.

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* From the Shriners' Hospital for Crippled Children and the Department of Surgery, Washington University School of Medicine, St. Louis.

[1] Key, J. A.: Brittle Bones and Blue Sclera (Hereditary Hypoplasia of the Mesenchyme), Arch. Surg. 13: 523-568 (Oct.) 1926.

Physical examination showed bilateral equinovarus (fig. 1). The feet were quite rigid, and the deformities did not lend themselves to correction. Other than the joints of the feet which were involved in the deformities (ankle and tarsal joints), there was definite hypermobility of practically all joints of the body. The toes could be hyperextended until they touched the dorsum of the foot, and there was an abnormal amount of motion in the tarsometatarsal joints. The knees could be hyperextended 15 degrees and there was an unusual amount of lateral mobility. The hips could be abducted to 90 degrees and, with the knee straight, flexed until the leg lay flat on the chest. The spine was unusually mobile and the joints of the upper extremities resembled those of the lower in the wide range of motion permitted. The shoulders were very loose and the elbows could be hyperextended about 20 degrees. The wrist was very loose and the fingers could be hyperextended until they touched the dorsum of the wrist.

In spite of the wide ranges of motion in the joints, there was no tendency to dislocation of any joint, nor could dislocations be produced by the manipulations that were permitted.

The blood and urine were normal, and the Wassermann reaction was negative.

Other than the deformities usual with this degree and type of clubfoot, the roentgenogram did not show anything abnormal.

CASE 2.—In F. D., a boy, aged 6, the history and physical examination were practicaly identical with those of the brother as described above and need not be repeated.

An older brother, W. D., aged 18 years, who came in for examination, Sept. 23, 1925, presented bilateral equinus with moderate clawfoot deformity. Dorsiflexion of the right ankle was limited to 80 degrees, and of the left ankle to 70 degrees. In practically all the other joints there were present the same abnormal ranges of motion as were noted in case 1. Figures 2, 3 and 4 illustrate the range of motion in the hand and wrist.

The father was a rather short heavy man, aged 50. He stated that when he was a young man his joints were fully as loose as those of the sons, but that with advancing years the hypermobility of the joints had gradually decreased. However, on physical examination, his joints were found to possess a much wider range of movement than do the joints of normal individuals, and this in spite of the fact that the knees, spine and hands showed evidence of a moderate degree of hypertrophic arthritis. In all these persons the knuckles and interphalangeal joints were unusually large and prominent.

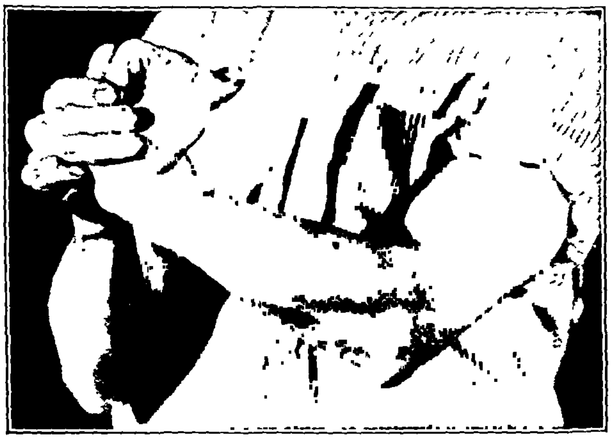
Fig. 3.—Passive hyperextension of the fingers.

COMMENT

In this family there was a condition of hypermobility of the joints which appeared in the father and was not present in his parents, in any of his nine brothers or in his sister. It was transmitted by the father to all four of his sons but not to any of his daughters. It thus acts as a sex linked character.

It is to be noted that while the father's feet were normal, except for the hypermobility of the joints, all four of the male children were born with bilateral deformities of the feet (three with talipes equinovarus and one with talipes equinus), but the five female children were normal. It thus appears that the clubfoot in this family was due to an abnormality in the germ plasm which is limited to the males. It is known that clubfoot is about twice as frequent in males as it is in females, and that in a small percentage of the cases it is hereditary, but I do not know of any other instance in which, in a large family, all the male children were affected and all the female children were free from the deformity.

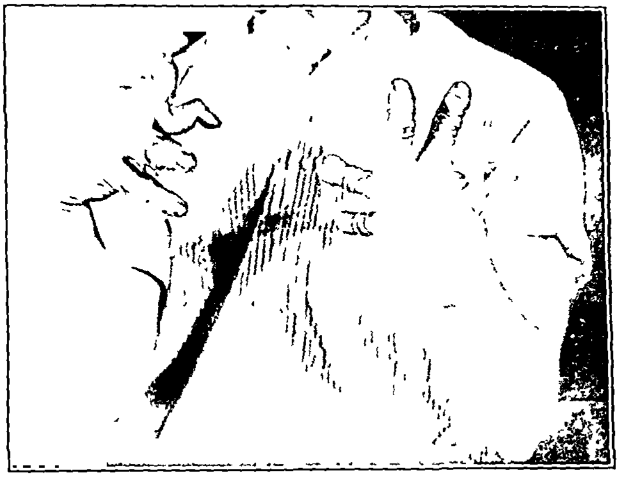
Fig. 4.—Active hyperextension at the first interphalangeal joints

From the standpoint of treatment, the occurrence of hypermobility of the joints in a case of clubfoot is of considerable importance, as it makes the treatment more difficult. These two boys were treated in the usual manner by wrenching, plantar fasciotomy, tenotomies and corrective plasters. Fair correction of the varus was obtained, but in correcting the equinus the feet gave at the midtarsal joint and the forefoot tended to dorsiflex on the heel, thus producing a rocker foot deformity. This I have attempted to correct by putting a pin over the top of the os calcis behind and pulling it down with a lever which presses upward on the sole at the calcaneocuboid joint. Some correction was obtained and the boys are now walking without braces (fig. 5), but in one foot of patient 1 further operative treatment will probably be necessary before adequate correction of the deformity can be obtained. There is also a tendency of the toes to assume abnormal positions with weight bearing and the fifth toes of patient 1 are subluxated.

The mild degree of hypertrophic arthritis present in the father can hardly be considered as being due to the hypermobility of the joints, because he is of the heavy type that very frequently develops this form of arthritis in late adult life.

The hypermobility of the joints present in the males of this family is to be distinguished from that present in the hereditary hypoplasia of the mesenchyme, which is characterized by brittle bones and blue sclerae. In that condition, which is transmitted as a dominant hereditary character, the joints are weak because of some developmental defect in the white fibrous tissue and the bones are brittle, partly because of the defective fibrous matrix and partly because the cortex contains a large number of wide canals.[1] In this condition of inherited hypermobility the ligaments are lax, but they appear to be very strong and there is no blueness of the sclera, while the bones are unusually heavy and dense.

The affected members of this family do not regard themselves as handicapped in any way by the condition, but are rather pleased with the fact that they are, as they say, "double jointed." In the older brother, W. D., the patellar ligaments on both sides are unusually long and he has suffered several dislocations of the patella. The dislocations have always been easily reduced and he does not wish operations to prevent recurrence of the dislocations. As there have been no other dislocations in any of the five affected members, there is no indication for treatment of the condition.

CONCLUSIONS

1. General hypermobility of the joints may occur as a congenital abnormality.

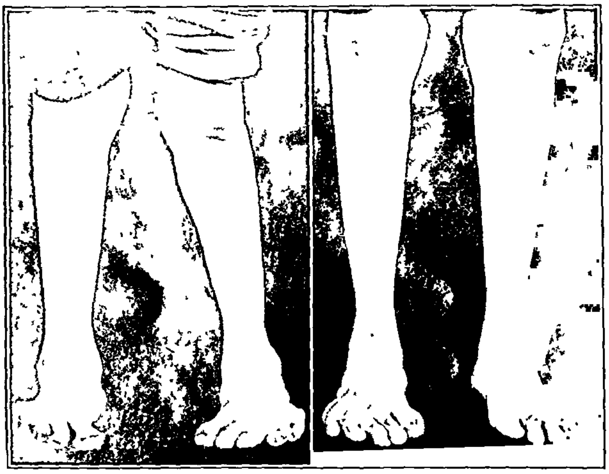

Fig 5 (cases 1 and 2)—Feet of the two brothers one year after discharge from the hospital, showing tendency of the toes to assume abnormal positions with weight bearing.

2. The condition appeared spontaneously in the father and was transmitted to all the sons but not to any of the daughters.

3. In the second generation of this family, the condition was associated with congenital deformities of the feet.

The Existence of Preformed Bonds.—Any man possesses at the very start of his life—that is, at the moment when the ovum and spermatozoon which are to produce him have united—numerous well defined tendencies to future behavior. Between the situations which he will meet and the responses which he will make to them, preformed bonds exist. It is already determined by the constitution of these two germs that under certain circumstances he will see and hear and feel and act in certain ways. His intellect and morals, as well as his bodily organs and movements, are in part the consequence of the nature of the embryo in the first moment of its life. What a man is and does throughout life is a result of whatever constitution he has at the start and of all the forces that act on it before and after birth.—Thorndike: Educational Psychology, p. 2.

Clinical Notes, Suggestions and New Instruments

ANEURYSM OF THE INTERNAL CAROTID ARTERY

Vilhelm Magnus, M.D., Oslo, Norway

In a report of two cases of lesions of the paratrigeminal region, Davis[1] says: "These patients offer a real differential diagnostic problem because surgical measures directed toward the fifth cranial nerve usually offer no relief." This assertion has not been proved by the cases that have been published, as in the first case only an alcoholic injection was made in the ophthalmic and the maxillary branch at the peripheral foramina, and later a deep injection was made in the maxillary branch; a radical operation was not performed. In a case comparable to Davis' second case, I have had good results from avulsion of the trigeminal root, and the patient was completely relieved of his pain.

REPORT OF CASE

Caretaker A. H., aged 69, consulted me, March 23, 1924, because of pain in the crown of the head, which radiated down the right part of the forehead, the right eye and the right side of the nose toward the right ear and down the right lower jaw. The pain had begun three months before; it was constantly increasing and never stopped for a moment, preventing the patient from sleeping at night. Sometimes the pain became unbearable and was described as a burning sensation. The patient could not stand to have his beard touched, and when washing he was obliged to exercise the greatest care. He was able to chew solid food without the pain increasing very much. The pain was relieved when he put a handkerchief over his face and breathed inside it so that the air became heated.

As shown in the accompanying illustration, the right palpebral fissure was much narrower than the left; the right eye was directed inward and moved only a little upward and downward, and the right pupil was much smaller than the left one. Both eyes reacted to light, and after the injection of a 5 per cent cocaine solution the left pupil but not the right became dilated; the right corneal reflex was extinguished. H. Lystad, the oculist who examined the patient, reported only a paralysis of the right nervus abducens and sympathicus. On account of the strong inward rotation of the right eye, it was impossible to estimate the intra-ocular pressure. For the same reason it was impossible to determine whether there was a trochlearis paralysis, an oculomotorius paralysis being absolutely out of the question. Besides this condition, there was hypesthesia throughout the right half side of the face. There was no involvement of the other cranial nerves.

The patient was somewhat dull; his understanding was slow, and he looked considerably older than he was. The temporal arteries were greatly tortuous, these as well as the radial arteries being hard and knotted. The Wassermann reaction of the blood was negative, and further examination revealed normal conditions. As the patient's arteries were extremely sclerotic I ausculted the skull, but a murmur was not heard. Six years before, the patient had been treated for a right abducens paralysis in the ophthalmic department of the Rikshospitalet.

Briefly, the patient's condition was a trigeminus involvement of the right side, besides a paralysis of the sympathicus fibers which innervate the right orbit and an abducens paralysis on the same side. I made the diagnosis of a slowly growing tumor in the trigeminal region, which first compressed the nervus abducens and then the gasserian ganglion.

As the patient's condition was unbearable, I performed an operation, April 8, in order to remove the trigeminus root. When the dura mater was detached, the middle meningeal artery was lacerated down on the base of the cranium, and as it was very difficult to ligate so far down, the external carotid artery was ligated on the neck. As the dura mater was detached from the base of the cranium, I came on a tumor about the size of a chestnut with a smooth surface and glistening like mother of pearl, strictly limited and situated on the surface of the gasserian ganglion. During the further attempts at detaching the dura mater from the surface of the tumor in its medial part, a hole was torn and the contents of the tumor poured out; they were yellowish brown, and came out in portions. About half was easily emptied with a spatula; while the rest was being enucleated, a great gush of blood that could not be stopped by tamponade poured out. The internal carotid artery was now ligated, and the bleeding stopped. The contents of the tumor could now be emptied without difficulty and the lateral wall, which was as thin as paper, extirpated. I dared not remove the medial wall for fear of injuring the sinus cavernosus. Afterward the trigeminus root was removed.

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[1] Davis, L. E.: Lesions of the Paratrigeminal Area, J. A. M. A. **80**: 380 (Feb. 10) 1923

Patient with aneurysm of internal carotid artery.

The patient stood the operation very well, the pulse never dropping below 74. He was not anemic after the operation, the loss of blood not having been very great, thanks to the comparatively rapid ligation of the internal carotid artery. The blood pressure was 165. In the afternoon the patient felt very comfortable, and said that I could not have given him a better birthday present, as he had completed his sixty-ninth year that day.

Three days later he complained of the left hand being paralyzed; he could move his fingers just a little and could hardly dorsiflect the hand, although the strength of the upper arm was satisfactory. It should be particularly noticed that the Babinski toe and the abdominal reflexes were equally strong on the left and on the right side. The sutures were removed the fifth day after operation, and three days later he was allowed to get up. April 23, he was discharged. At that time the ptosis and the position of the eyes were unchanged, and there was a total anesthesia in the right trigeminus region. He was absolutely free from pain, the paralysis in the left hand being the same.

COMMENT

The microscopic diagnosis of the contents of the tumor was blood coagulation. Doubtless the tumor had been an aneurysmal enlargement of the internal carotid artery in its course inside the sinus cavernosus, which had first pressed on the nervous abducens and then on the sympathetic fibers which pass from the carotid arteries to the gasserian ganglion. The coagulation of the blood indicated that there had been a tendency to repair the failing artery walls, but it is hardly probable that the cure would have been permanent. The aneurysm had constantly enlarged laterally, and by its pressure on the surface of the gasserian ganglion it had caused trigeminus neuralgia. It is supposed that the aneurysm would have burst within a comparatively short time and killed the patient. In the accessible literature I have found two parallel cases of aneurysm of the internal carotid artery, one having been described by Davis and the other by Hutchinson.

My particular case shows that much can be done for patients suffering from this complaint, if only the practitioner who has the case adopts a similar treatment. Doubtless the mortality after ligation of the internal carotid artery is rather great; but if nothing is done, certain death will be the fate of the patient.

Uranienborgveien 9.

New and Nonofficial Remedies

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

W. A. Puckner, Secretary.

EPHEDRINE HYDROCHLORIDE-SWAN-MYERS (See The Journal, April 16, 1927, p. 1235).

The following dosage forms have been accepted:

Ampoules Ephedrine Hydrochloride-Swan-Myers, 0.05 Gm., 1 cc.
Capsules Ephedrine Hydrochloride-Swan-Myers, 0.025 Gm.
Solution Ephedrine Hydrochloride-Swan-Myers, 3%: It is preserved with chlorbutanol, 0.5 per cent.

OVARIAN HORMONE-SQUIBB.—A sterile, aqueous solution representing the physiologically active principle of the whole ovary. It is standardized in terms of its effect on spayed albino rats, one rat unit being the quantity necessary to induce estrus as judged by the smear method within three days in an ovariectomized, sexually mature rat weighing approximately 140 Gm.

Actions and Uses.—See Ovary, New and Nonofficial Remedies, 1927, p. 272.

Dosage.—Ovarian hormone-Squibb is administered by hypodermic injection. For recent cases of amenorrhea, artificial or natural menopause, from 50 to 100 units is given in a series of injections over a period of from three to five days, an attempt being made, if possible, to time these injections so that the last one shall be given from one to five days before the calculated expected menstruation. For long existing cases of amenorrhea, artificial or natural menopause, much larger doses may be administered; from 250 to 400 units may be given in a series of injections over a period of from five to ten days. If menstruation is not established, another course may be administered after an interval of ten days.

Manufactured by E. R. Squibb & Sons, New York. No U. S. patent or trademark.

Ovarian Hormone-Suibb, 50 units, 5 cc.: each cubic centimeter represents 10 units.

Ovarian hormone-Squibb is prepared from fresh ovaries of the sow by macerating and extracting with alcohol and concentrating the extract. A series of fractionations are made with acetone and ether to remove the proteins, cholesterol and phospholipins. The extract is dissolved in distilled water containing sodium chloride, assayed by the method of Allen and Doisy (*Am. J. Anat.* 34: 133, 1924) to determine its strength in rat units and adjusted to the desired strength and to an acidity of pH 5.5.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

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SATURDAY, MAY 28, 1927

PRECIPITATION TESTS IN THE DIAGNOSIS OF SYPHILIS

Since the development of the Wassermann test, almost yearly announcements of precipitation tests for syphilis have ensued. Only recently, however, have such methods begun to attract wide attention. The medical world apparently has insisted on giving the Wassermann test a thorough trial before turning to simpler methods. Now that the value and especially the limitations of the Wassermann test have been established, clinicians are turning to precipitation tests and asking whether any of them have superior features.

Twenty years ago, when it was believed that the Wassermann test was a specific immunologic reaction, Fornet and Schereschewsky[1] immunized rabbits with an extract of syphilitic liver containing *Spirochaeta pallida* and observed that the serum of these rabbits contained specific precipitins. This observation led them to believe that in old cases of syphilis, such as general paralysis, immune bodies in the form of precipitins might be present in the patient's blood. They believed, further, that in secondary and other active stages of syphilis the patient's blood might contain spirochetes or their end-products and might possess antigenic properties in the form of precipitinogen. Therefore, serum from a patient with secondary syphilis added to the serum from a patient with general paralysis would show a precipitate. They asserted that they had observed this, although their work did not lead to the evolvement of a practical precipitation method. Michaelis soon showed that it was possible to obtain a precipitate by mixing syphilitic serum with a watery extract of syphilitic liver. Porges and Meier demonstrated that a precipitate could be obtained by adding lecithin suspensions to syphilitic serum. Jacobstahl followed with a precipitation method in which an alcoholic extract of syphilitic liver was used as antigen and the precipitates were observed by means of dark-field illumination. Bruck and Hidaka, in turn, showed that it was not necessary to resort to the microscope. By modifying Jacobstahl's procedure it was possible to see precipitates with the unaided eye. It is significant that the last-named workers stated that their studies were not intended to bring forth a method for the serum diagnosis of syphilis; only theoretical interest prompted them, since the Wassermann test was available for diagnostic purposes.

In 1915, Hecht announced a precipitation test in which an alcoholic extract of heart muscle was used as antigen. By this time it was well established that the Wassermann test was not a specific immunologic reaction and that alcoholic extracts of normal heart tissue served well as antigen. In 1917, Meinicke reported "water" and "salt solution" precipitation methods. These were short lived and were soon replaced by his "third modification," which employed as antigen an extract of horse heart. This modification attracted some interest for several years, especially in Germany. In 1922, following Dold's report of a turbidity reaction for syphilis, Meinicke reported a reaction of this type in which syphilitic serum became turbid after incubation with a special cholesterolized antigen containing balsam. This he followed in 1923 by a turbidity test based on a balsam-containing antigen but cholesterol free. More recently Meinicke announced a microreaction. The original Sachs-Georgi reaction employed as an antigen a cholesterolized alcoholic extract of beef heart and was announced in 1918. This reaction was generally accepted to have similar diagnostic value to the "third modification" of Meinicke. Both reactions required an incubation period of forty-eight hours before obtaining the final results. Sachs and Klopstock have since proposed a method that is more rapid than the Sachs-Georgi test and is based on the addition of mastic to the tissue extract antigen. Vernes developed a precipitation procedure in which syphilitic serum is used with a special reagent, "perethynol," which is prepared from horse heart. This procedure requires several delicately adjusted apparatus devised by Vernes. Dryer and Ward proposed a precipitation reaction in which calf-heart antigen is employed. Additional reactions have been announced by Hecht, Bruck, Wang and others.

During the past few years the Kahn test has aroused much interest. In this test, a cholesterolized alcoholic extract of beef heart is employed as antigen. According to Kahn, the test is based on certain fundamental factors that govern the phenomenon of precipitation with syphilitic serum. These have already been referred to in these columns.[2] He emphasizes the necessity for concentration of the ingredients that make up the test, the use of a mixture of antigen and physiologic sodium chloride solution which is highly unstable, the need for correct quantitative relationship between serum and antigen, and the importance of shaking the serum-antigen mixture for a definite period. Aside from its apparent specificity and uniformity of results, the Kahn test possesses the advantage of being completed within a few minutes after the ingredients have been mixed. The completion of the test from the time blood is drawn from the patient requires less than one hour. This is of practical importance, since it enables physicians to obtain early laboratory reports in emergency cases, such as in blood transfusion and in surgical cases. Furthermore, the technic of the test is such that it can be used with accuracy in the tropics and other parts of the world removed from medical centers. Several procedures extend the applicability of the test. In addition to the routine diagnostic test with serum there is a spinal fluid procedure, a presumptive or check procedure, and a quantitative method. This last procedure gives the number of syphilitic reacting substances in the blood of patients and is of particular value in following the serologic effect of treatment.

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[1] This and subsequent references are cited by Bruck, C.: Serodiagnose der Syphilis, Berlin, Julius Springer, 1924, and by Kahn, R. L.: Serum Diagnosis of Syphilis by Precipitation, Baltimore, Williams and Wilkins Company, 1925.

[2] The Kahn Reaction in the Diagnosis of Syphilis, Current Comment, J. A. M. A. 87: 1921 (Dec. 4) 1926.

The search for a precipitation test for syphilis which has been carried on more or less steadily since the development of the Wassermann test is not difficult to understand. A precipitation test requires only two reagents and its technic is comparatively simple, while the Wassermann test requires five reagents and its technic is highly complicated. The fact that many precipitation tests have been proposed which have not proved successful in the laboratory diagnosis of syphilis may perhaps delay the acceptance of any precipitation test, even if it is superior. This delay, however, cannot be indefinite, and any simpler test that is reliable will ultimately replace the more cumbersome Wassermann method.

INTESTINAL ABSORPTION IN RICKETS

The defective calcification of the bones that is characteristic of rickets is associated with a diminished concentration of the inorganic phosphorus or the calcium of the serum. Certain cases show only a low inorganic phosphorus content, and this is the rule in uncomplicated rickets; other cases show only a low concentration of calcium, the condition usually found when rickets is complicated by tetany; while still others may be associated with diminished concentrations of both these elements. It has furthermore been demonstrated that these low concentrations of calcium and phosphorus are found only in the active stage of the disease, and that when rickets heals, either spontaneously or as the result of treatment, the values return to normal. Early in the investigation of the conditions that may be responsible for the abnormalities in the metabolism of these inorganic elements in the body it was suggested, among other explanations, that some difficulty might lie in their absorption. On this basis the improvement in the condition of the bones when antirachitic measures are instituted might be attributable to an increased absorption of calcium and phosphorus from the intestine. This is by no means the only possibility that can account for the remedial effect; a decreased excretion of the effective elements is also conceivable as tending to promote the same beneficial result. Four years ago Orr, Holt, Wilkins and Boone[1] of the Johns Hopkins Hospital argued, on the basis of balance studies in infants, in favor of the hypothesis of improved absorption. In their own words, the primary difficulty, as yet unexplained, in the rachitic disturbance is a defect in the capacity of the intestine to absorb calcium and phosphorus. The low concentrations of these elements in the serum and the defective calcification ensuing are the direct results of this condition. When treatment is instituted, either with cod liver oil or with ultraviolet rays, although no change is made in the calcium and phosphorus of the diet, absorption of these elements from the intestine occurs much more readily. Their concentration in the blood serum rises until the deposition of calcium phosphate in the bones becomes possible.

From a chemical standpoint it is obvious that the reaction of the intestinal contents must be of importance in determining the ease of absorption of the compounds of calcium and phosphorus. They tend to be more insoluble in alkaline mediums. On "normal" diets the hydrogen ion concentration of the contents of the digestive tract tend to remain on the acid side, though there are variations in the degree at various levels of the bowel. Increased alkalinity would tend to promote the formation of insoluble calcium phosphate. Observations made on rats, one of the species most widely employed in the classic studies of rickets, have shown that when these animals are placed on a rachitic regimen a marked fecal alkalinity develops.[2] This alkalinity is not affected by administration of certain nonrachitic substances; but the fecal p_H can be reduced to the acid side of neutrality by various antirachitic measures.

Investigations by Grayzel and Miller[3] at the Columbia University College of Physicians and Surgeons have thrown light on the reaction of the contents of the gastro-intestinal tract at various levels in dogs kept on diets of varied character. The normal diet showed acidity throughout the tract, with considerable constancy at each level. High fat, protein or carbohydrate variations did not cause notable changes, the results falling within the normal ranges. The rickets-producing diet caused a definite rise in the p_H of the contents of the intestines, even to alkalinity. Ultraviolet irradiation or cod liver oil administration (both of which are known to be curative or preventive for rickets) to dogs on the same diet caused an acidification of the intestinal contents to the normal range. The gastric contents did not show changes. The New York biochemists argue that their experiments add further evidence for the view that the primary defect in rickets is an impairment of absorption. As they point out, the p_H of the intestinal contents, with the consequent effect on the solubility of phosphate (and also of calcium, magnesium and iron) offers a mechanism whereby the effect of such agents as light and cod liver oil may be linked with the inorganic metabolism.

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[1] Orr, W. J.; Holt, L. E., Jr.; Wilkins, Lawson; and Boone, F. H.: The Calcium and Phosphorus Metabolism in Rickets, with Special Reference to Ultraviolet Ray Therapy, Am. J. Dis. Child. **26**: 362 (Oct.) 1923.

[2] Abrahamson, E., and Miller, E. G., Jr.: Proc. Soc. Exper. Biol. & Med. **22**: 438, 1925. Jephcott, H., and Bacharach, A. L.: Biochem. J. **20**: 1350, 1926.

[3] Grayzel, D. M., and Miller, E. G., Jr.: p_H Concentration of Intestinal Contents of Dog, with Special Reference to Inorganic Metabolism, Proc. Soc. Exper. Biol. & Med. **24**: 668 (April) 1927.

THE WASHINGTON SESSION

Already the Washington Session of the American Medical Association is history—but glorious history. Never before in the history of the Association has there been such complete recognition of the outstanding leadership in medical science of the American Medical Association—a position that has been won by years of whole-hearted striving for the good of the American public. From the opening session of the House of Delegates on Monday, May 16, to the reading of the last paper in the last scientific session on Friday, May 20, the attention of the scientific world pointed toward Washington. The session was, moreover, resplendent with the official panoply available only in the Capital City of the nation.

A registered attendance of 6,273 means the coming of at least 10,000 guests into the convention city. Not one complaint was heard of the nature of the hotel accommodations; representatives of the scientific sections were enthusiastic in their praise of the qualities of the section meeting halls; exhibitors in the technical exhibits vied with one another in enthusiasm for the places that had been granted to them, and the Scientific Exhibit reached a pinnacle of display beyond even the wildest dreams of the Committee on Scientific Exhibit, which has tenderly nursed this portion of the meeting from an infant weakling to its present high estate.

On Tuesday night, May 17, the President of the United States, Calvin Coolidge, conferred on the American Medical Association, as the representative of scientific medicine in this country, high praise for its contribution to American medicine. More than 6,000 persons taxed the capacity of the auditorium in which the meeting was held, and some 5,000 persons crowded the adjacent streets vainly seeking admission. The address in toto appeared in most of the leading newspapers of the United States. On Wednesday afternoon, the President of the United States, with the distinguished lady who adorns her notable position, greeted several thousand physicians, in spite of most inclement weather, on the White House lawn. On Thursday night, a noteworthy ceremony in the Mayflower Hotel was the annual reception to the President of the American Medical Association. Meanwhile, the physicians of Washington, every department of the national government, including particularly the Army and Navy medical departments, the U. S. Public Health Service and the many medical bureaus of the Department of the Interior, assembled exhibitions for the visiting guests.

Nowhere except in Washington could there be presented such a meeting as that which has just been held. Washington, as the seat of the nation's government, holds representatives of all the great press associations and special representatives of most of the important newspapers of the United States. That section of the Association which has to do with newspaper publicity was able to convey to these representatives authoritative information concerning not only the official action of the House of Delegates but also the work of the scientific sections. Thousands of press clippings already coming into the headquarters office indicate that the accomplishments of the Washington Session have been adequately reflected to the entire American people—indeed, to all the world.

The Local Committee of Arrangements, the officers of the American Medical Association, and every one who had any part in making the Washington Session what it was, deserve the highest appreciation of the members of the greatest medical association in the world.

INSENSIBLE PERSPIRATION IN CHILDREN

There are evidences that insensible losses from the body were recognized as early as the days of Hippocrates and Galen. Such losses, often designated as insensible perspiration, are represented by those gaseous emanations from the body which do not appear in the form of sensible moisture or sweat; in other words, the insensible, invisible, intangible but weighable gaseous and vapor productions arising from the lungs in the process of exhalation and from the skin by due process of vaporization. Students of physiology are familiar with the picture of Sanctorius and his ingenious steelyard wherewith as early as 1614 he made measurements of his own loss of weight attributable to what he termed "perspiratio insensibilis." Modern studies of the gaseous emanations from the lungs and skin of man indicate that they consist chiefly of carbon dioxide and water vapor, the amount of marsh gas produced in this species being negligible. Benedict and Root[1] have pointed out that in view of the comparatively small portion of the loss represented by the carbonaceous components it is justifiable, broadly speaking, to identify the insensible loss for the most part with water vaporized from the body.

From a physiologic standpoint the insensible losses from the body represent a mode of elimination of certain products of metabolism: end-products of the oxidation of carbon and hydrogen as well as waste heat generated in the organism. The refined yet simple methods introduced by Benedict and Root for measuring losses of weight due solely to insensible perspiration have brought out sharply the influence of body size, ingestion of food and exercise on the insensible loss. Since these factors likewise affect the metabolism, Benedict and Root regard it as evident that there is a relationship between the insensible loss and the metabolism. Patients with diseases of the thyroid, whose metabolism is high, were found to have a large insensible loss; and diabetic patients, whose metabolism is low, were found to have a small loss. The relationship between the insensible perspiration and the metabolism of these two types of pathologic cases was such that when the data for the hourly insensible perspiration were plotted with reference to the twenty-four hour heat production, a straight line indicated the general trend of the metabolism. Consequently it has been suggested that measurement of insensible loss from the body may make possible an approximation of the metabolism when, for practical reasons, the ordinary methods of determining the metabolism may not be employed.

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[1] Benedict, F. G., and Root, H F.: Insensible Perspiration: Its Relation to Human Physiology and Pathology, Arch. Int. Med. 38:1 (July) 1926.

The significance of this conclusion has recently been substantiated by the studies of Levine and Wilson[2] on children at the Cornell University Medical College. The importance of their observations is accentuated by the well known fact that the metabolism of childhood is demonstrably accelerated in comparison with that of adult life; and furthermore, the "water balance" of the youthful organism seems to be particularly susceptible to profound disturbance. The results of Levine and Wilson indicate that healthy children and most sick children (afebrile), as well as adults, eliminate approximately 25 per cent of the total heat produced in vaporization through skin and lungs, and the remaining 75 per cent by way of radiation and conduction. The close relation between insensible perspiration and metabolism previously found to exist in adults may be extended to children.

Current Comment

WILLIAM SYDNEY THAYER, PRESIDENT-ELECT

William Sydney Thayer, M.D.
President-Elect of the American Medical Association

The election to the presidency of the American Medical Association of Dr. William Sydney Thayer is a recognition of outstanding achievement in medical science and the conferring of the highest honor in the hands of the House of Delegates of the American Medical Association on one whose leadership has already been recognized both in this country and abroad. Dr. Thayer was born in Milton, Mass., June 23, 1864, the son of James Bradley and Sophia Bradford (Ripley) Thayer. After an elementary education in a private school in Milton he attended the Cambridge high school, and later Harvard University, from which he received his A.B. degree in 1885, and his M.D. in 1889. A period of postgraduate study in Berlin and Vienna from 1889 to 1890 followed an internship in the Massachusetts General Hospital. He began at once as a general practitioner in Boston, but in 1890 was called to the Johns Hopkins Hospital as a resident physician, which position he held until 1898. He succeeded to the position of attending physician and head of the medical department of the dispensary from 1898 to 1906, at the same time serving as associate professor in medicine in the Johns Hopkins University. He became professor of clinical medicine in 1900, holding this position until 1918, and acted as professor of medicine from 1918 to 1921. At that time he became emeritus professor in the university, serving also as visiting physician to the hospital and consulting physician to many other Baltimore institutions. During the World War Dr. Thayer was a major in the medical section of the Officers' Reserve, assigned to active duty in 1918, serving subsequently as Director of General Medicine in the A. E. F., Chief Consultant in Medicine, and achieving finally the rank of Brigadier General. From the first, Dr. Thayer has been conspicuous for organizational and research ability. His contributions to the etiology of malaria have received wide recognition, and perhaps the training with Thayer in the laboratories of Johns Hopkins University was instrumental in stimulating the work of Carroll on the Yellow Fever Commission. The contributions of Dr. Thayer have also concerned particularly studies of the blood in various pathologic conditions, especially in typhoid, the cardiac and vascular complications of chorea and typhoid, arteriosclerosis, heart murmurs and heart block. These accomplishments have been recognized by his election to honorary membership in numerous foreign medical societies. He received the distinguished badge of the Red Cross of Russia in 1917, the Distinguished Service Medal of the United States government in 1919, and the rank of Officer in the Legion of Honor of France in 1923. In the American Medical Association, Dr. Thayer has been a willing and an important worker. He was Chairman of the Section on Practice of Medicine in 1902-1903. The *Archives of Internal Medicine* has had his services as a member of its editorial board since its publication was begun, in 1908, and the Judicial Council has benefited by his experience since 1919. Quite recently, Dr. Thayer has been selected to deliver the Bright lectures in clinical medicine, and will depart shortly to visit England for this purpose. In honoring him, the House of Delegates of the American Medical Association recognizes the leadership of its body not only in policies affecting the physicians of this country, but also in the practice of medicine and in scientific achievement.

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[2] Levine, S. Z., and Wilson, J. R.: Respiratory Metabolism in Infancy and in Childhood: IV. Elimination of Water Through the Skin and Respiratory Passages, Am. J. Dis. Child. 33: 204 (Feb.) 1927.

A POSSIBLE FACTOR IN STERILITY

The recent investigations on the possible relations of diet to sterility and the discovery of a substance—vitamin E—that may be concerned with fertility in both the male and the female have been so striking and unusual that they may divert attention from other equally important factors in relation to reproduction. In addition to the elaboration of potent spermatozoa, to proper ovulation and to effective placentation, there are other conditions both anatomic and chemical that must be realized to secure successful gestation. Kurzrok and Miller [1] of the Columbia University College of Physicians and Surgeons, New York, have pointed out that the plug of mucus filling the cervical canal and the external os is very viscous and adhesive, and when pulled away from the cervix it forms a slimy string which is broken with difficulty. In cases that do not present pelvic pathologic changes the mucus is semitransparent; when there is a lesion such as an infection, laceration, eversion or erosion, the cervical mucus tends to become mucopurulent in character and more adhesive. The mucous plug consists largely of a mucin and water. It presents, unless altered, a considerable barrier to the passage of spermatozoa. According to Kurzrok and Miller, semen exerts a highly specific lytic action on the mucin of the cervix. The solvent effect appears to be enzymic in character. The substance responsible for this action is thermolabile, as enzymes are; and it does not depend on the presence of spermatozoa. Tests made with mucus from a patient with a leukorrheal discharge due to a lacerated cervix, and from one with acute gonorrhea, indicated that the digesting action of normal semen is markedly diminished or stopped by the presence of pus in the mucus. The New York investigators believe that the lytic substance of the semen may be an important factor in the passage of spermatozoa up the genital tract, and that its absence may be an etiologic factor in some cases of sterility in which no explanation has heretofore been offered.

THE CAMPAIGN AGAINST LEPROSY

General Leonard Wood, Governor of the Philippine Islands, favors an appeal to the American people for $2,000,000 with which to fight leprosy in the islands. The reasons for the appeal to private subscription rather than for an appropriation by the United States government were well presented to a congressional joint committee.[1] The Culion Leper Colony is probably the greatest leprosy laboratory in the world. It shelters about 6,000 lepers, and under improved methods of treatment 1,006 of these patients have been returned to their homes as having an arrested and noncontagious form of the disease. Living conditions in the colony have been improved, and, more important for the future, a devoted staff is carrying on research. The colony is controlled by the Philippine Health Department, which appropriates annually $600,000 for its maintenance. This amount is more than a third of the total Philippine appropriation for health work and represents the utmost financial support that the Philippine government can give to the leprosy campaign. The appropriation, however, is insufficient. Accordingly, bills were introduced in the Congress of the United States which would provide the necessary funds and which would also create a Philippine leprosy commission. The commission so created would assume the whole problem, relieving the overburdened Philippine Health Department of the task. To the American mind, this is the efficient solution, and, therefore, all that could be desired. In the opinion of those most intimately in touch with the work, however, it would nullify the progress that has been made. The reason for this is that most of the leprosy is found among the ignorant and the poverty stricken, and Filipinos of this class are suspicious and fearful. Their cooperation in leprosy work has been won with difficulty. It was secured only by appealing to them through their own people. Nothing could be accomplished without their cooperation. At present, fear that the campaign will be taken over by the Americans and administered by force is acute and inhibitory. Passage of the bills concerned would, apparently, undo the work of years. Under these conditions the joint committee that was investigating the problem has thrown the weight of its influence with the desires of those who are prosecuting the work in the Philippines and has expressed the "belief that this is a matter for private rather than governmental aid."

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[1] Kurzrok, R., and Miller, E. G., Jr.: Biochemical Studies of Human Semen and the Mucin of the Cervix Uteri: I. Proc. Soc. Exper. Biol. & Med. 24:670 (April) 1927.

[1] Leprosy in the Philippine Islands: Joint Hearings before the Committee on Territories and Insular Possessions, U. S. Senate and Committee on Insular Affairs, House of Representatives; Sixty-Ninth Congress, second session on S. 5434 and H. R. 16618, Part 3, Feb. 15, 1927; *Government Printing Office.*

PROCEEDINGS OF THE WASHINGTON SESSION

MINUTES OF THE SEVENTY-EIGHTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT WASHINGTON, D. C., MAY 16-20, 1927

HOUSE OF DELEGATES

First Meeting—Monday Morning, May 16

(Continued from page 1646)

The House of Delegates convened, and was called to order at 10 o'clock by the Speaker, Dr. F. C. Warnshuis, Michigan.

Preliminary Report of the Committee on Credentials

A preliminary report of the Committee on Credentials was submitted by the Chairman, Dr. J. D. Brook, Michigan, who reported that there had been filed with the committee registrations totaling ninety-two members with proper credentials. On motion of Dr. Brook, seconded and carried, the report of the Committee on Credentials was considered the roll call of the House.

The next order of business was the presentation, correction and adoption of minutes of the Seventy-Seventh Annual Session.

On motion of Dr. E. J. Goodwin, Missouri, seconded and carried, the minutes of the last session were approved as printed.

The Vice Speaker, Dr. Allen H. Bunce, Georgia, took the chair after which the speaker delivered his address (THE JOURNAL, May 21, p. 1642).

Dr. William Allen Pusey, Illinois, moved that the message to the President be approved and the Secretary be instructed to forward it.

Dr. A. T. McCormack, Kentucky, seconded the motion, which was carried by a rising vote.

The address of the Speaker was referred to the Reference Committee on Reports of Officers.

Reference Committees

The Speaker resumed the Chair and announced the appointments to reference committees:

SECTIONS AND SECTION WORK

T. B. Throckmorton, Chairman	Section on Nervous and Mental Diseases
Isaac A. Abt	Section on Diseases of Children
J. H. Cannon	South Carolina
S. P. Mengel	Pennsylvania
Wells Teachnor, Sr.	Ohio

RULES AND ORDER OF BUSINESS

Henri P. Linsz, Chairman	West Virginia
E. A. Pray	North Dakota
Henry B. Costill	New Jersey
F. A. Carmichael	Kansas
G. R. Proctor	Idaho

MEDICAL EDUCATION AND HOSPITALS

William Allen Pusey, Chairman	Illinois
Irvin Abell	Kentucky
F. B. Lund	Massachusetts
J. A. Witherspoon	Tennessee
J. C. Litzenberg	Minnesota

LEGISLATION AND PUBLIC RELATIONS

E. J. Goodwin, Chairman	Missouri
A. T. McCormack	Kentucky
A. D. Dunn	Nebraska
B. R. Shurly	Section on Laryngology, Otology and Rhinology
D. E. McGillivray	Washington

HYGIENE AND PUBLIC HEALTH

H. M. Brown, Chairman	Wisconsin
J. R. Kevin	New York
C. E. Mongan	Massachusetts
V. G. Vecki	California
P. S. Roy	District of Columbia

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Holman Taylor, Chairman	Texas
S. W. Welch	Alabama
L. H. McKinnie	Colorado
W. R. Steiner	Connecticut
C. T. Pigot	Montana

REPORTS OF OFFICERS

C. E. Humiston, Chairman	Illinois
A. E. Bulson, Jr	Indiana
J. N. Vander Veer	New York
J. N. Henry	Pennsylvania
W. G. Ricker	Vermont

REPORTS OF BOARDS OF TRUSTEES AND SECRETARY

A. W. Booth, Chairman	New York
C. J. Whalen	Illinois
H. G. Stetson	Massachusetts
J. N. Hunsberger	Pennsylvania
Southgate Leigh	Virginia

CREDENTIALS

J. D. Brook, Chairman	Michigan
W. O. LaMotte	Delaware
B. L. Bryant	Maine
C. E. Piersall	Nevada
W. A. Cook	Oklahoma

MISCELLANEOUS BUSINESS

Albert Soiland, Chairman	California
S. M. Blackshear	Louisiana
Charles O'Donovan	Maryland
D. E. Sullivan	New Hampshire
T. O. Freeman	Illinois

Addresses

The Speaker introduced the President, Dr. Wendell C. Phillips, New York, who delivered his address (THE JOURNAL, May 21, p. 1644), which was referred to the Reference Committee on Reports of Officers.

The Speaker introduced the President-Elect, Dr. Jabez N. Jackson, Missouri, who delivered his address (THE JOURNAL, May 21, p. 1646), which was referred to the Reference Committee on Reports of Officers.

The Speaker introduced Dr. Hubert Work, Secretary of the Interior, who said:

Mr. Speaker and, I am sure I can say, My Good Friends in the Other Life: I can for the moment appreciate fully, I am sure, the impulses that a retired fire horse turned out to pasture must feel when the fire engine goes by. (Laughter.) I too have broken down the fence, and though a little late in arriving, I am here again.

To pursue the analogy a little bit further, I know that I will be of no use now that I have arrived. (Laughter.)

But the pleasure is just as acute to see the work go on as it did when I was a part of it, and I am sure by the full attendance here this morning and from what I know from the outside, gleaned from my semidetached position, that the American Medical Association is running true to form and the standards of its House of Delegates are fully as high as, if not higher than, they were in my time.

It is a little humiliating, perhaps, and yet the lesson is wholesome, I am sure, for men like Dr. Simmons sitting back there and myself to feel that this great organization is going forward as well and probably better since we have stepped aside. On the other hand, as a matter of self-respect, we take unction to ourselves and feel and say to each other that it would not have gone forward with such vigor and strength and credit had it not been for our participation. (Applause.)

REPORTS OF OFFICERS

Report of Secretary

Dr. Olin West presented the Report of the Secretary as printed in the Handbook. The report was referred to the Reference Committee on Reports of Board of Trustees and Secretary except those portions of the report dealing with amendments to the Constitution and By-Laws. These were referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Report of the Board of Trustees

Dr. Edward B. Heckel, Pennsylvania, chairman of the Board of Trustees, presented the report of the Board in the Handbook. The report was referred to the Reference Committee on Reports of Board of Trustees and Secretary.

Report of Judicial Council

Dr M L Harris, Illinois, presented the report of the Judicial Council as printed in the Handbook The report was referred to the Reference Committee on Reports of Officers, except the last two paragraphs, which were referred to the Reference Committee on Amendments to the Constitution and By-Laws

Report of the Council on Medical Education and Hospitals

Dr Arthur Dean Bevan, Illinois, chairman of the Council on Medical Education and Hospitals, presented the report as printed

Report on Nursing Service

The Speaker called the attention of the House to the fact that two committees had been appointed to deal with the problem of nurse education and that two reports would be presented He suggested the appointment of a special committee to consider these reports

The Secretary announced that the report of the Committee on Grading of Nursing Schools was in his hands

Dr E Eliot Harris, New York, moved that the Speaker be directed to appoint a special committee to consider all reports dealing with nursing and nurse education

Dr Harris' motion was seconded by Dr E C Thrash of Georgia and carried

The report of the Council on Medical Education and Hospitals was referred to the Committee on Medical Education and Hospitals except that portion referring to the nursing problem

Report of Council on Scientific Assembly

Dr J Shelton Horsley, Virginia, Chairman of the Council on Scientific Assembly, in presenting the report, said I wish to call attention to the enlargement and the greater scope of the scientific exhibit and the necessity of even greater elaboration between that and the work of the sections If those who read papers in the sections will make every effort possible to have the illustrations or the specimens shown in the scientific exhibit, it will add not only to the attractiveness of the scientific exhibit but also greatly to the effectiveness of the paper There is no meeting of the Section on Miscellaneous Topics this year

The report of the Council on Scientific Assembly was referred to the Reference Committee on Sections and Section Work

Report on Disaster Relief

Dr William Allen Pusey, Illinois, read a report of the conference called by the American Red Cross at Memphis, Tenn, April 28, to consider the flood situation The report was referred to the Reference Committee on Legislation and Public Relations

Special Committee on Nurses' Training and Education

The Speaker announced as the special committee authorized by the House to consider the problem of nurses training and education Irvin Abell, Kentucky, Chairman, F P Sloan, Illinois, Arthur J Bedell, New York, Walter F Donaldson, Pennsylvania, L J Hirschman, Michigan

The reports of the Committee on Nurses and Nursing Education and the Committee on Grading of Nursing Schools were referred to this committee

Report of the Advisory Committee on Trachoma Among the Indians

This report was referred to the Reference Committee on Hygiene and Public Health

NEW BUSINESS

Dr Albert E Bulson, Jr, Indiana, offered three resolutions:

Resolution on Medical Publicity

Whereas Some of the prominent members of the regular medical profession have been guilty of bad taste if not unethical conduct in permitting their names and oftentimes a record of their professional attainments, to be published in the lay press in connection with articles or interviews pertaining to medical or surgical subjects, and

Whereas, Such articles savor of self exploitation and very justly may be considered as a bid for patronage or favor, and

Whereas, The proper and wholesome education of the public may be served efficiently and well by published medical and surgical articles of an educational nature in the lay press under the auspices of reputable medical societies, therefore be it

Resolved That it shall be considered unethical for any Fellow of the American Medical Association willingly to permit his name to be connected with any medical or surgical article or interview, of an educational nature or otherwise, that may appear in the lay press and possibly be construed as an act of self exploitation, and that with the exception of those articles that shall be issued by public health officers or men not in private practice, all educational articles pertaining to medical or surgical subjects shall appear under the auspices of this Association or one of its component societies or constituent associations

This was referred to the Judicial Council

Resolution on Insurance Blanks

Whereas, There is a growing tendency on the part of some insurance and indemnity companies as well as industrial concerns, to impose on physicians by requesting or expecting that more or less complete physical examinations, including written reports of same or that a written expert medical opinion concerning patients shall be made for nominal fees or perhaps no fees at all, and that there is increasing tendency on the part of such organizations or concerns to shift responsibility by making erroneous claims that the services are in the interest of the patient or client from whom the physician cannot justly claim compensation, therefore be it

Resolved That it is the sense of the American Medical Association as represented by this House, that the members of the American Medical Association are under no moral or legal obligations to furnish professional services or expert professional opinion concerning any patient, or reports concerning professional services rendered any patient, to insurance or indemnity companies to industrial concerns or their agents or for the benefit of any third party, unless paid the customary fees charged by the medical men of that community for similar services rendered to private patients

This was referred to the Reference Committee on Miscellaneous Business

Resolution on Annual Service Facilities

Resolved That the annual sessions of this Association shall be held only in cities in which the facilities for properly caring for all the activities of the Association have been canvassed and approved by the Board of Trustees in advance of the time when decision as to meeting place is to be made, and be it further

Resolved That to enable the House of Delegates to vote intelligently on this question, the Board of Trustees at each session shall present its approval of two or more cities which on investigation by the Board have been found to possess ample and adequate facilities for caring for the Association and all its activities in a satisfactory manner for the ensuing session, and be it further

Resolved That the Board of Trustees shall have the authority to change the place for holding the annual session if an emergency arises or if for any reason it is deemed advisable by the Board to change from the selection made by the House of Delegates

This was referred to the Reference Committee on Miscellaneous Business

Motion for Executive Session

Dr William H Mayer, Pennsylvania, moved that any resolution referable to the situation of alcohol as a therapeutic agent or the legal questions involved be considered or introduced only in executive session

The motion was seconded by Dr Isaac Abt, Section on Diseases of Children, and carried unanimously

The Speaker requested that such resolutions be withheld until the Speaker has indicated that the House will go into executive session

Resolution on Criticism of Practice

Dr E P Sloan, Illinois, presented the following resolution, which was referred to the Judicial Council

Resolved That section 7, chapter II of the Principles of Medical Ethics of the American Medical Association shall be amended by inserting after 'Profession' the fourth word in the fourth line, the following

"All questions affecting the professional reputation or standing of a member or members of the medical profession shall be considered only *in executive sessions* or by special or duly appointed committees *on* ethical relations Making section 7 of chapter II read as follows

Safeguarding the profession Section 7 Physicians should expose without fear or favor, before the proper medical or legal tribunals corrupt or dishonest conduct of members of the profession All questions affecting the professional reputation or standing of a member or members of the medical profession shall be considered only in executive sessions or by special or duly appointed committees on ethical relations Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified *because deficient either in moral character or education*"

Resolution on Heroin

Dr. S. M. Blackshear, Louisiana, read the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, By the House of Delegates of the American Medical Association in annual session convened at Washington, D C, May 16, 1927, that:

Whereas, Authorities agree that the narcotic evil is almost wholly a police rather than a medical problem, and

Whereas, From the past experience with laws of this nature we feel that the drug addict will continue to get their supplies of heroin unless they be dealt with in other fashion, and that therefore the sufferers from this proscription will be the patients of the physicians and surgeons in their legitimate practice, therefore the Congress of the United States be and is hereby petitioned, through our Senators and Representatives, to repeal said amendment (H R 7079), that each of our Senators and Congressmen be furnished a copy of this resolution, with the appeal to help us free ourselves from the bonds of too many restrictions in our work; further be it

Resolved, That the proper officials of the American Medical Association be requested and instructed to bring up this subject matter for consideration before the proper authorities of Congress, with the object in view of having the above actions of the House of Delegates properly executed and made into law.

Resolution on Veterans' Bureau

Dr. H M Brown, Wisconsin, presented the following communication from an officer of the Veterans' Bureau.

"At the last annual meeting of the Association of Military Surgeons a resolution was adopted granting the medical officers of the Veterans' Bureau the same privileges of membership in that organization as are accorded to the officers of the Army, Navy and Public Health Service. It is the desire of the medical service of the Veterans' Bureau to have the physicians connected with the bureau as closely associated with the American Medical Association as may be, and in view of the above it is especially requested that the regular full-time medical officers of the Veterans' Bureau on active duty be granted fellowship in the American Medical Association on the same basis as are other officers of the government. The medical director or some person delegated by him would be pleased to appear before the House of Delegates and discuss the matter more at length."

The Speaker: Referred to the Reference Committee on Rules and Order of Business.

Resolution on Medical Practice in District of Columbia

Dr. Philip S Roy, District of Columbia, read the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Whereas, The Medical Society of the District of Columbia is seeking enactment by the Congress of the United States of a comprehensive medical practice act, which provides for an adequate examination of all persons seeking to treat ailments of the human body, and

Whereas, The physician residing within the District of Columbia are disfranchised and deprived of representation in either the Senate or the House of Representatives, being denied the privilege of ballot, a right accorded every citizen of the United States excepting those residing within the District of Columbia, and

Whereas, The city of Washington, because of the inadequacy of its present laws, has become the mecca for cultists and irregulars of every description, as well as the diploma mills of the lowest type, be it

Resolved, That the House of Delegates through its membership from the several states affords its aid and support to the Medical Society of the District of Columbia by suitable representations to the members of the Senate and House of Representatives, and urges similar cooperation from the various state associations in securing this much needed legislation, fostered by the District of Columbia Society

Resolution on Income Tax Exemptions

Dr. E. A. Hines, South Carolina, read the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

Whereas, When the last two revenue bills were pending in the House of Representatives of the United States Congress two years ago and four years ago, respectively, Hon. J. J. McSwain of South Carolina offered amendments providing and stipulating that any taxpayer should be privileged to deduct from his income his expenses for himself and family incurred for medical treatment, surgical operations and hospital and funeral expenses, and medical treatment to include professional services, nurse hire, and drugs, and

Whereas, The reason for this exemption is stronger than the present exemption permitted for losses by fire and storm, and the breaking and wearing out of machinery and bad debts, inasmuch as the human body is the greatest factor in the earning of income, and the expense of keeping it in good order, and of correcting disorder should, in good conscience and sound logic, be legally deductible, and

Whereas, The only argument made against the amendment was that it might lead to fraud on the government, though the same argument could be made as against all deductions now allowed, even with greater force, for no man could falsify his return by claiming that he had an operation, or a death in his family, and even a claim of medical services, including drugs and nurse hire, could be so easily checked that fraud would be impossible, and

Whereas, Congressman McSwain feels that a very little propaganda among the members of the medical profession and among the druggist and undertakers will enable him to write this provision into the next revenue bill, therefore be it

Resolved, That the South Carolina Medical Association by its House of Delegates in convention assembled does hereby memorialize and pray the House of Delegates of the American Medical Association to adopt resolutions endorsing this proposed amendment to the United States revenue bill relating to income taxes, and to take immediate steps to invoke the interests and endorsement of every constituent state medical association for this important movement, urging each such association, and through it each county association, to adopt strong resolutions of endorsement and to advise its respective state Congressmen of its action, and be it further

Resolved, That the delegates from the South Carolina Medical Association to the American Medical Association are hereby instructed to present this preamble and resolution to the House of Delegates of the American Medical Association at its coming meeting in Washington, D C, and to make every effort to have inaugurated and prosecuted the suggested movement for the attainment of the ends hereinbefore set forth

Resolution on Cosmetics

Dr. Orrin Sage Wightman, New York, at the request of the Department of Legal Medicine of the New York City Department of Health, read the following resolution relative to the legal regulation and control of the sale and commercial use of toilet preparations, which was referred to the Reference Committee on Hygiene and Public Health:

Whereas, Commercial preparations for preserving and enhancing personal beauty are being used by the public in increasing quantities and to an extent hitherto unknown;

Whereas, Such preparation include a not inconsiderable number that contain ingredients liable to cause bodily harm,

Whereas, Purchasers of such preparations and persons commercially using them and on whom they are commercially used cannot discover which of them may be safely used and which are potentially harmful except by trial and at risk of personal injury, and

Whereas, There is no adequate law forbidding the use of essentially harmful ingredients in such preparations and requiring that labels declare the presence of such ingredients as are potential for harm, therefore be it

Resolved, That it is the sense of the House of Delegates of the American Medical Association that a law should be promptly enacted by Congress to regulate and control the manufacture, distribution, sale and commercial use of toilet preparations for preserving and enhancing personal beauty, whether for the mitigation or cure of disease or otherwise, so far as such legislation lies within the jurisdiction of the federal government, and that correlated uniform state laws should be enacted by the several state legislatures to protect the people within their respective jurisdictions from harm through the manufacture, distribution, sale and use of such preparations

Dr. Daniel S. Dougherty, New York: The Medical Society of the State of New York offers the identical document that Dr. Wightman has just presented from the Department of Health of New York City. There is no use of presenting it again

The Speaker: The same will be referred to the same Reference Committee.

Resolutions on Narcotics

Dr. Charles O'Donovan, Maryland, read two resolutions, which were referred to the Reference Committee on Legislation and Public Relations:

FIRST RESOLUTION

Resolved, That the opposition of the Board of Trustees of the American Medical Association to the bills proposing certain amendments of the Harrison Narcotic Law, mentioned on pages 64-65 of the Handbook for the delegates of the American Medical Association for 1927, is hereby approved.

SECOND RESOLUTION

Resolved, That the House of Delegates request the delegates of the medical and chirurgical faculty of Maryland, to the American Medical Association, to introduce a resolution and if possible have same passed, requesting the Bureau of Narcotics to restore heroin to the list of available drugs.

Report on Indigent Physicians

The Speaker requested Dr. George H. Simmons, Chairman, to present the report of the special committee appointed to investigate the need for homes for indigent physicians.

Mr. Speaker and Members of the House of Delegates:

In accordance with your action taken at Dallas, Texas, last year, our committee was appointed, "to make a survey of the physical condition and financial status of its members who are incapacitated for earning their support by the practice of their profession, with the objective of establishing, managing and sustaining a home or homes for their care and maintenance."

A questionnaire was prepared and, together with a letter explaining the object of the survey, was sent to the secretaries of state associations, for them to forward to secretaries of component societies.

The questions in the questionnaire that concern us were:

(1) "In your opinion, based on personal knowledge or on inquiry among older members of our profession: How many indigent physicians are there in your county who are so situated — because of either age or physical infirmity — as to entitle them to admission to a home founded and supported by the medical profession, if there were such a home? (Physicians who have relatives able and willing to support them should not be considered as 'indigent' in this connection; they might be included in the report but, if so, the facts should be indicated.)"

(2) "Is there any eleemosynary institution in your county in which indigent physicians might find a haven of refuge? If so, is there a physician in such institution at the present time?"

The letter which accompanied the questionnaire contained these two paragraphs:

> The primary object of this survey is to secure data specifically as to the need and advisability of establishing such a home or homes as contemplated by the action of the House of Delegates of the American Medical Association. However, the committee might find it advisable to recommend an alternative method of meeting the needs of those of our members who, because of age or physical disability, might have become incapacitated and indigent. For instance, permanent benevolent funds might be created to be used with discretion when necessary.
>
> The survey should include those physicians who, for any reason, have become dependent inmates of homes supported by city, county or state or by philanthropic or fraternal organizations. Each county secretary is asked to secure the information regarding the institutions in his county. The report might include physicians who are not members of the organization, but, if so, this should be indicated.

The summary of results of this survey by states is given below. While only a minority of the questionnaires were returned from a few of the states, we feel that a careful review of the information herewith submitted will bring out the fact that we have had before us sufficient detailed information to provide us with a graphic cross section of the conditions studied in a great majority of the states in the Union.

The fact that from some states only a minority of the questionnaires were returned may be explained in part. It is certainly probable that if there were an incapacitated and indigent physician in a county, the secretary of that county society would know of the case, and that he would be interested and report it at once. If, on the other hand, he did not know of any such case, he might not be interested and might lay the questionnaire aside—and forget it. However, it will be seen by referring to the matter under the "Summary by States," that a number of state secretaries who naturally would have knowledge of conditions included the whole state in their summaries.

An analysis of the reports shows that twenty-five states report no indigency; the remainder report a total of forty-one cases. A large number of the answers to Question 1 were in a monosyllable: "one," "two" or "three," as the case might be. In such instances, letters asking for specific information were addressed to the secretaries concerned. Many of the replies indicated that the information given was based on gossip or on rumor, which, when pursued, was discarded. For instance, the secretary of one component society says: "To my surprise, the physician I reported as indigent had $12,000 in a savings account and in bonds." Another secretary, who had written "three" in answer to Question 1, replied: "The three doctors that were referred to in the questionnaire have left the county except one, and he has returned to practice." These are samples—others will be found in the "Summary by States." It would be merely guess work to estimate how many of the physicians—about twenty-one—concerning whom we have no information could be classed as incapacitated and indigent. Of the twenty about whom we have information, two are drug addicts; one is in a local eleemosynary institution and—it is reported—"he prefers to stay in the institution"; two are being cared for in private homes, and one has been practicing illegitimately and "deserves little consideration." Others, the reports show, could not be persuaded to go to a home if there were one. Further, there are quite a number whose circumstances are such as could be satisfactorily met only by financial aid in their homes; they are not institutional cases.

Those who are interested will, of course, read the reports, as well as the opinions expressed by reporters, published in the "Summary by States." Especially interesting will be the reports from Massachusetts, Pennsylvania and Missouri.

The committee is of the opinion that even if the investigation had revealed a much larger number of incapacitated and indigent physicians, the establishment and support of a national home, or of homes, by the medical profession would not be the best way to meet the needs of such physicians.

To remove a physician from the community in which he had long practiced and in which he had many old patients as well as friends, both lay and medical, would be unkind. Old people cling to their old associates, and an old physician is not an exception. The committee believes that it would be better to render such aid as would make it possible for a physician, indigent and incapacitated, to end his days among those whom he knows and who know him. Certainly, from the economic point of view, this plan would be more satisfactory than to send him to such a home as proposed. The overhead expenses alone connected with a home, even with such as those established by secret and fraternal orders and by religious bodies, are as great per capita as would be required in the majority of our cases to support them in their home communities. It may be taken for granted, however, that if the American Medical Association undertook to establish a home, the standard in both the buildings and the surroundings, as well as in the management, would have to be creditable to the medical profession.

As might have been expected, this survey revealed the existence of cases of temporary, pecuniary stress brought on by illness, by accident or by other causes, that call for temporary relief only.

Existing needs, therefore, are not alone with respect to aged and permanently incapacitated, indigent physicians, but also for those temporarily incapacitated and in pecuniary distress. Several state associations and county medical societies have well defined plans for meeting these needs, and aid is rendered quietly and without publicity.

In its investigation, the committee has accumulated a large amount of data on this particular subject, which it will turn over to the Secretary of the American Medical Association. It is recommended that the Secretary of the Association be requested to secure full information with respect to what is now being done in this regard by the profession—state and local—so that it may be generally available to the end that other state and component societies may take measures to afford relief for worthy physicians, their widows and orphans, who may be in need and that he report with recommendations at the next annual meeting.

The results of this investigation convince the committee that the need for a national home for incapacitated and indigent physicians is not sufficient to warrant the American Medical Association in "establishing, managing and sustaining a home," as contemplated by the resolutions creating our committee.

The committee desires to thank the secretaries of constituent and component societies for their cooperation and assistance in making this survey; without their aid this investigation could not have been made.

Respectfully submitted.

G. H. SIMMONS, Chairman.
JOHN A. WITHERSPOON.
A. R. MCCOMAS.
WALTER F. DONALDSON.
D. E. SULLIVAN.

SUMMARY BY STATES

ALABAMA

The Assistant Secretary of the Medical Association of the State of Alabama, Dr. D. L. Cannon, conducted the survey for that state, and reports as follows:

> On the basis of fifty-six questionnaires returned by as many counties out of the sixty-seven, constituting the medical association, I am led to believe that there are no really indigent physicians in Alabama.

ARIZONA

Arizona has eleven component societies; secretaries of six returned the questionnaires properly filled out. No indigent physicians are reported.

ARKANSAS

Dr. W. R. Bathurst, Secretary of the Arkansas State Medical Society, conducted the survey in that state. Reports were received from twenty-five of the sixty-three county societies in this state. One county secretary says, "There is one physician in the county with tuberculosis. He is able to care for himself for awhile but not very long. He has no nearer relatives than two nephews. No immediate family."

Another secretary reported one physician as indigent. A letter of inquiry brought out the fact that this doctor, who is fifty-six years old, had a stroke of hemiplegia two years ago and has been physically helpless since. The secretary states that the doctor has a wife and two children, and a "little home not in the clear but just how much is due on it I do not know"; that he has an income of $75.00 a month from sick and accident policy, and $4500.00 life insurance from which premiums are waived, and that he is a member of his component county society, but that since his stroke his dues have been waived.

CALIFORNIA

Dr. Emma W. Pope, Secretary of the California Medical Association reports: Nineteen out of the forty component societies in California have returned the questionnaires. Five indigent physicians are reported in the whole state. One of them is in a county institution and two are reported as nonmembers. We have been unable to secure further information in reply to letters of inquiry regarding them.

Under date of April 30, Dr. Pope, writes:

> "No further replies were received following those previously forwarded to you. From the answers of the nineteen secretaries, I would say a home for incapacitated and indigent physicians in California is not needed."

COLORADO

Dr. F. B. Stephenson, Secretary of the Colorado State Medical Society, secured reports from twenty of the twenty-four component societies in his state. All except one answered question 1 in the negative. One county secretary wrote "One" in answer to question 1; a letter of inquiry has brought no response.

CONNECTICUT

Five of the eight component societies in Connecticut have returned the questionnaires. No indigent physicians are reported.

Dr. C. W. Comfort, Secretary of the Connecticut State Medical Society, says that these five societies represent the three largest counties and two smaller ones. He adds, "My candid impression is that there is no need for a 'home' in this state."

DELAWARE

Dr. W. O. LaMotte, Secretary of the Medical Society of Delaware, writes that reports were received from all three of the component branches of his society. There are no indigent physicians.

DISTRICT OF COLUMBIA

The Secretary of the Medical Society of the District of Columbia, Dr. C. B. Conklin, reports,

> I have no personal knowledge of there being any physician in the District who could be considered a candidate for any proposed "Home."

FLORIDA

Dr. Stewart G. Thompson, Business Manager of the Florida Medical Association, writes that only six of the thirty component societies in Florida have reported, and that Question 1 is answered in the negative in each instance.

GEORGIA

Forty-nine of the one hundred and five questionnaires sent to the county societies were returned: All answers to Question 1 were negative. Dr. Allen H. Bunce, Secretary of the Medical Association of Georgia, in forwarding these questionnaires, says:

> We do not think a home for aged physicians is needed. It would be much better to keep aged and incapacitated physicians in their own communities and with their families and friends.

IDAHO

Dr. J. N. Davis, Secretary of the Idaho State Medical Association, received and forwarded ten of the twelve questionnaires that were sent to the county societies in his state. Question 1 was answered in the negative in each instance.

ILLINOIS

Dr. Harold M. Camp, Secretary of the Illinois State Medical Society, conducted the survey in his state. Fifty-six of the ninety-one component societies returned the questionnaires. Of these, fifty-three reported no indigency. One county secretary reported; "One physician, old, feeble and almost destitute." In reply to a letter of inquiry, the secretary says:

> "The doctor I refer to is Dr. C. He is a graduate of Missouri Medical College, St. Louis, class of 1876, and was born in 1850. This doctor's support is his daughter. He is a cripple and his daughter is getting up in years. She is also the support of the family. The doctor is an honorary member of our local society."

Another county secretary reported, "Possibly one." In reply to a letter of inquiry, the secretary says: "I think the physician I had in mind has relatives who can and will take care of him."

The third of the three reported "One—perhaps." No reply has been received to our letter of inquiry regarding this case.

In reply to our request for information concerning medical relief efforts that had been made by the Chicago—Cook County—Medical Society through a committee of which he is chairman, Dr. William Allen Pusey writes:

> "At the time of my presidency of the Chicago Medical Society in 1917-18, a doctor's widow applied to the Society for help and it occurred to me that it would be a very useful thing to do, for the society to take care of the distress that occurred among its members. A Committee of Physicians' Relief was appointed of which I was made chairman; and provision of a fund was made for meeting the obligations that might arise. A notice of the committee and its purposes were published in the Bulletin and the officers of the branch societies were advised to look up cases of need among doctors and refer them to me. Much to my surprise no demands developed.
>
> What we proposed to do was to take care of actual need among physicians and their families. Practically no cases of destitution came to my attention. The widow who sug-

gested the idea to me was one case. She, I learned, was the widow of a physician who had skated on the edge of destitution all of his life. Another case was a physician for whom appeals were made because of long illness. After two winters of contributions to him it was felt that further contributions were not necessary.

Besides these two cases no others came to the attention of this committee. So far as I know the committee has never been discharged, but has ceased to function through lack of demands. From my experience, I should say that in Chicago there is among physicians practically no destitution of a degree that demands actual charity."

INDIANA

Mr. T. A. Hendricks, Executive Secretary of the Indiana State Medical Association, conducted the survey for that state. He has transmitted to the Committee a complete tabulated report. Sixty-eight of the eighty-one county societies reported. One indigent physician is reported from each of two county societies.

Regarding one of these, definite information has not been received. The county secretary reports concerning the other.

> Dr. ———, aged 75, is without means of support and is almost physically unable to do much active practice. He is a Mason and would be entitled to aid in the Indiana Masonic Home.

IOWA

Dr. Tom B. Throckmorton, Secretary of the Iowa State Medical Society, writes:

> Concerning indigent physicians in Iowa, I would say that I recall only one instance where someone has written into my office to ascertain if the Society had a fund available to use for the care of an indigent physician. About two weeks ago I received such a letter. I since learned that aid had been given the deserving Doctor. If there are physicians in this state needing financial help the matter has not come to my attention outside of the above mentioned incident.

KANSAS

Dr. J. F. Hassig, Secretary of the Kansas Medical Society, writes that reports were received from twenty of the sixty-one county societies in Kansas. One indigent physician was reported from each of three county societies.

One case: "Doctor————, 73 years of age, mental and nervous breakdown. He has relatives who could help but his wife supports him. He is an honorary member of the society. He is not in active practice."

Of the second, the county secretary says: "A drug addict, making a precarious living illegitimately."

The third "Has friends in East able to care for him, but he has lived here for fifty years."

KENTUCKY

Dr. A. T. McCormack, Secretary of the Kentucky State Medical Association, reports that sixty-eight of the one hundred and twelve component societies in his state returned the questionnaires. Three indigent physicians were reported. Specific information concerning the three has not been received.

LOUISIANA

Through an excusable misunderstanding, a complete, systematic survey of Louisiana was not made. Dr. C. A. Weiss of Baton Rouge, who, for the past five years, has been chairman of the Committee on the Care of the Indigent Physicians of the State of Louisiana and who, therefore, would naturally have a fair knowledge of conditions in his state, in a recent letter on the general subject, writes:

> "I am happy to say that I have not heard of many physicians requiring a helping hand in Louisiana. A Home for Physicians does not appeal to me. The mere fact of having to go to a Home has numerous drawbacks. Then, too, a Home is expensive to maintain and, no matter where located, it would not be convenient to all doctors needing help."

MAINE

Dr. B. L. Bryant, Secretary of the Maine Medical Association, reports:

> I am returning to you the questionnaires concerning incapacitated physicians. We have heard from all of the county societies (15) except two in the state. They are unanimous in reporting that there are no physicians in need of help, or a home, in their counties. I feel as I wrote you previously that so far as the state of Maine goes, we have no physicians in need of a home or of financial aid at the present time.

MARYLAND

Dr. J. A. Chatard, Secretary of the Medical and Chirurgical Faculty of Maryland, writes:

> We have just been holding our annual meeting and I have been waiting for this opportunity to ask the various county members who attend, for their opinion regarding indigent physicians in Maryland. They all say that there are none in their counties and I believe this to be true, with possibly one or two exceptions. Personally, I know of none in Baltimore City, but I would not like to say "ex cathedra" that there are none.
>
> Our former Committee on Relief for Widows and Orphans, has been renamed the Eugene Fauntleroy Cordell Fund Committee. There are several beneficiaries under this but the question of indigent physicians is one that they have not gone into and they do not feel that it properly comes under their jurisdiction.

MASSACHUSETTS

Dr. W. L. Burrage, Secretary of the Massachusetts Medical Society, reports:

> "We have not thought it wise to trouble the secretaries of our eighteen District Medical Societies as to questionnaires, relying as we do on the activities of the Massachusetts Medical Benevolent Society, which was organized in the year 1857 and has carried on its good work in relieving incapacitated physicians ever since. It is an independent society with officers of its own and a personnel made up of the charitably inclined members of the medical profession of the State. So far as known there are no medical men in Massachusetts who are incapacitated that are not cared for by this society."

The state department of Massachusetts which supervises public relief, including private charities as well as public departments and alms houses, reports that in twenty years only seven physicians received such aid, four of whom were very old, and the remainder of whom were drug addicts.

Jeffrey R. Brackett, founder and professor in the "School for Social Workers" at Harvard University, and at Simmons College who investigated the situation for the Massachusetts Medical Society, expresses the following opinion:

> "Obviously, the problem of aged and needy doctors in any particular locality is a small one, and the only sound principle of care and treatment is that of individual care, using private families as much as possible and specialized institutions when needed—whether hospitals or homes or infirmaries or alms houses. This principle is the one now generally recognized for care of children, i. e., use of homes in families first, and is fast becoming recognized for old persons. If the doctors in local groups will join to raise necessary funds for such individual care and treatment, according to particular need, whether in family life or in an institution, then these old men can be kept in or near their familiar places and friends."

MICHIGAN

Forty-two of the fifty-three county societies have reported. Dr. F. C. Warnshuis, Secretary of the Michigan State Medical Society, in forwarding these questionnaires, says:

> I am returning to you questionnaires covering the state of Michigan, so far as they have been returned in response to two letters that we sent out to county secretaries. These will indicate that at the present time there is but one medical man in a county institution, and he is there by choice and not by force of circumstances. It is quite evident that as far

as Michigan is concerned, we are not in need of any home for aged physicians. The counties not reporting are small counties of scattered population and no large communities or any great number of physicians.

MINNESOTA

Dr. E. A. Meyerding, Secretary of the Minnesota State Medical Association, writes that twenty-eight of the thirty-six component societies in Minnesota have reported An indigent physician is reported in only one county The secretary of the county society reports, in brief, that this physician is in the county home; that he is old and infirm but, the secretary thinks he is not entitled to consideration Good reasons are given for this conclusion.

MISSISSIPPI

Mississippi reports on eight out of its twenty-six county medical societies. No indigent physician The secretary of the Mississippi State Medical Association, Dr. T M Dye, in sending in the last questionnaires, says, "I do not know of a single indigent physician in Mississippi, and I am fairly well conversant with the situation throughout the entire state."

MISSOURI

As the results of the survey in Missouri are illustrative, they are here given in more detail. The secretary of the state society, Dr. E. J. Goodwin, who undertook to make the survey, started his investigation early; this gave him time to secure all the facts concerning individual cases In December he sent in his first report, to the effect that he had heard from 48 county *societies*: "*In these forty-eight counties, the secretaries report* five physicians indigent and incapacitated." No name or other information was given. Dr. Goodwin was asked to get the facts about each case. Later, two other cases were reported, making seven in all. Investigation showed that four of the seven were "self-supporting," and did not need a home or outside assistance. Of the three who are indigent, the following is a brief summary:

Dr G., 77 years of age, suffering from "arteriosclerosis," graduated from Keokuk P. & S. in 1878, and has been 48 years in his present location. He seems to have been living with his daughter, who evidently was not financially able to care for him On February 25, Dr Goodwin reported: "I have completed arrangements with the Physicians Home in New York, and he will go there about March 1. "On March 7, Dr Goodwin writes that Dr. G "now declines to accept the hospitality of the Physicians Home. The home was ready to take not only him but his daughter. However, he had declind to go there or elewhere"

Dr M, aged 66, graduated from Missouri Medical College in 1881, has been in his present location 47 years, and is suffering from "paralysis" A daughter, who is a trained nurse, gave up her work to take care of him He is a member of his county society, which is quite small The Masonic body helps some. His family will not consent to placing him in an institution

Dr P, aged 75, graduated from Iowa College of Physicians and Surgeons in 1878, and has been in his present location thirty years He suffers from "paralysis" He is not a member. He lives at home with his wife, who does a little sewing which is their sole income

Dr. Goodwin says: "In view of the refusal of two of the three to accept hospital care, the question arises how many would decline such provision if we did establish a home for them?"

The final report, dated April 26, reads:

Enclosed is a supplementary report on incapacitated physicians in Missouri. You will note there are three names on the list I now send you; two self-supporting; one relatives can support. This makes a total of ten names in the lists reported to you. One, Dr. M———— has died Of the remaining nine, two (Dr. G. and Dr. P.) are indigent These reports represent a total of 69 component county societies out of the 95 in Missouri, leaving 26 not yet heard from. Of these 26, I doubt if we will receive any more names to add to the list.

MONTANA

Dr E. G. Balsam, Secretary of the Medical Association of Montana, reports that "There is no needy M D. in Montana that I have discovered."

NEBRASKA

Dr. R. B. Adams, Secretary of the Nebraska State Medical Association, reports that forty-one of the fifty-four county societies returned the questionnaires, and that each of two county societies reported one indigent physician.

Dr. Adams states that he has not been able to secure any information regarding one of the cases The other case is that of a physician, 81 years of age, who has not been able to practice for some years. Because of valuable service rendered the state association during the early part of his life, he is receiving a practical pension of $600.00 a year A few of his old friends subscribe a "pot" every year in addition to the pension He is of such a character and his surroundings are such that he could not be persuaded to go to a home if there were one

NEVADA

Dr H J Brown Secretary of the Nevada State Medical *Association, writes*, "*I am glad to state that*, so far as I know, we have no incapacitated physicians in Nevada at this time."

NEW HAMPSHIRE

Dr D E Sullivan, Secretary of the New Hampshire Medical Society sends reports from nine of the ten component societies in his state. Seven answer Question 1 in the negative. One reports.

"One—not a member," and the other, "two" Additional information has not been received from the secretary who reported one indigent physician

The secretary answering "two" replies. "The two incapacitated physicians are Dr G and Dr L Dr. G is 35, was graduated from Tufts in 1913, entered practice in ———————— in 1918, at present is incapacitated by a hemiplegia, and is supported as far as I know by insurance and relatives Dr L. graduated from University of Pennsylvania in 1895, she is about 50 (estimated) and carries on a rather desultory practice in a small town Both are members but have been relieved of the expense of paying dues.

NEW JERSEY

Dr. J. B Morrison, Secretary of the Medical Society of New Jersey, reports

I have made a careful survey of the counties of the state of New Jersey and fail to find any physicians who are public charges or reported in need of financial assistance In not a single instance is any physician reported by the county secretaries as being supported by the public.

We have in the state a home for aged bachelors and widowers, with an endowment of six millions, and this does not contain any physician as an inmate

NEW MEXICO

Dr C M Yater, Secretary of the New Mexico Medical Society, reports that secretaries of six of the twelve component societies in New Mexico returned the questionnaire. One of the six answered, "One" to Question 1. Reply has not been received to a letter of inquiry concerning this physician.

NEW YORK

Reports have been received from twenty of the sixty component societies in New York Nineteen counties reported no indigency One county secretary reported one case, but information has not been received in reply to a letter of inquiry.

NORTH CAROLINA

Sixty-four of the eighty-eight county societies reported. Dr. L B McBrayer, Secretary of the Medical Society of the State of North Carolina, in sending in the final questionnaires, says:

We were unable to get all the county secretaries to return the questionnaires, but we are pretty sure there are no other indigent physicians in the state saving the one mentioned in ——— county.

In the county referred to, question 1 is answered "One." Reply has not been received to a letter of inquiry.

NORTH DAKOTA

Dr. J. G. Lamont, Acting Secretary of the North Dakota State Medical Association, reports that replies to the questionnaire were received from six of the fourteen district societies in his state. No indigent physicians were reported. Dr. Lamont adds, "We believe that this report is as complete as it can be made at the present time."

OHIO

When the request for a survey of Ohio was presented to the Council of the Ohio State Medical Association, at its first meeting in January, it unanimously promised its cooperation Mr Don K Martin, Executive Secretary, at once sent out the questionnaires to the county societies, followed up and investigated cases that were reported as indigent and incapacitated, and finally submitted a tabulated report, covering all counties heard from The executive secretary sends the following summary

Sixty-one of the eighty-eight counties in Ohio returning this questionnaire show that there are scarcely any indigent physicians in the state Four were being cared for by relatives, two physically incapacitated have sufficient finances to care for themselves, and two were being cared for in religious homes

OKLAHOMA

Reports from forty four of the sixty three county societies were transmitted to this office by Dr C A Thompson, Secretary of the Oklahoma State Medical Association Forty-three reported no indigency One county secretary answered "One' to Question 1, a letter of inquiry has brought no response

OREGON

Five of the fourteen component societies of Oregon reported no indigency Dr F D Stricker, Secretary of the Oregon State Medical Society, writes

> Relative to the survey concerning incapacitated and indigent physicians in Oregon, I believe that we have done all we can do The questionnaires were duly sent to the secretaries of the county medical societies last December
>
> In my capacity as state health officer, I come in close contact with physicians of the state and I do not know of any case of an incapacitated and indigent physician I should be very glad to do more on this subject but I do not believe that the conditions in our state are such as to make the care of indigent physicians a problem

PENNSYLVANIA

Dr W F Donaldson, Secretary of the Medical Society of the State of Pennsylvania, has conducted the survey in his state and submits the following report

A questionnaire was addressed to eighty two members, secretaries of county societies, councilors and ex-presidents of the state society residing in the sixty-three of Pennsylvania's sixty-seven counties in which medical societies are extant Replies were received from sixty-nine regarding conditions in fifty one counties A brief summary of the replies is as follows

Two physicians are at present (1926) indigent residents of insane asylums, one is in a county home, another, totally blind, is well cared for by his children, one, a drug addict, died in 1920 after six months' residence in a county home In another county, the secretary, who has practiced for forty-three years, states that one physician died in the county home From the Philadelphia County Benevolent Society, membership in which is limited to members of the Philadelphia County Medical Society, comes the report that but few who sought aid would have been willing to enter a home for indigent physicians and these only if permitted to have their wives accompany them

It is believed that, during the last twenty-five years, among the eight thousand physicians practicing in Pennsylvania, there has not been an instance in which a sane member of the medical profession in need of care might have been better cared for in a home for incapacitated physicians than in his home community, with the financial aid of his relatives or the assistance of his medical society

In 1905 the Medical Society of the State of Pennsylvania provided for a medical benevolence fund to be created by allotting from each member's annual dues a sum not to exceed $1, to be kept separate, invested and used only for the relief of pecuniary distress of sick or aged members or for that of the parents, widows, widowers or children of deceased members This annual allotment has never been less than 10 cents or more than 65 cents, but in the twenty-two years, augmented by contributions from various members and from the treasury of various component societies, it has grown to a sum approximating $36,000 It was never intended that benefits from the fund should take the place of support due from relatives, or that they should be the sole source of support of any beneficiary; rather, it was intended that they should parallel assistance received from other sources

RHODE ISLAND

Four of the six county societies in Rhode Island reported, no indigent physician is noted in any of them

Dr J W Leech, Secretary of the Rhode Island Medical Society, writes

> Since 1920 there have been three physicians as inmates of the state hospital for mental diseases Two have recovered, one has died At the state infirmary there have been no physician inmates At the state prison there have been three physician inmates, but concerning two of these, the state public welfare committee states that there is a question as to their status as physicians

SOUTH CAROLINA

Dr E A Hines, Secretary of the South Carolina Medical Association, writes that twenty-four of the forty component societies in South Carolina reported Question 1 is answered in the negative in all but one of the counties The secretary of this county answers "One" A reply has not been received to a letter of inquiry

SOUTH DAKOTA

Dr John F O Cook, Secretary of the South Dakota State Medical Association, reports that questionnaires were returned from six of the twelve component societies in South Dakota No indigent physician reported

TENNESSEE

Dr John A Witherspoon of Nashville kindly consented to conduct the survey of Tennessee Replies were received from forty-one of the sixty questionnaires that were sent out These forty-one replies cover practically 80 per cent of the physicians of Tennessee.

Two physicians were reported as indigent and incapacitated There has not been time, however, to receive replies to inquiries regarding one As to the other, the county secretary reports

> Dr D, aged 55, graduated in 1899, has a wife who is an invalid, and two dependent children, having lost five from tuberculosis of lungs He has practiced in the poorest regions and never accumulated a surplus He recently moved to ————County, where fire destroyed his household goods, all of his equipment and left him quite destitute His medical friends have helped him financially in order to enable him to continue the practice of his profession

Dr Witherspoon writes

> I feel that we can without question say that out of 80 or 85 per cent of the doctors in this state there are only three that are indigent Their conditions we do not as yet know

After making an analysis of the material, the Secretary of the Tennessee State Medical Association, Dr H H Shoulders, to whom Dr Witherspoon turned over the data he collected, corroborated the above

TEXAS

Dr Holman Taylor, Secretary of the State Medical Association of Texas, has forwarded questionnaires from fifty-four of the one hundred and thirty-five component societies in his state Two indigent physicians are reported, but particulars have not been received

In his final report Dr Taylor comments

> It does seem to me that there is no need either for a fund or for an institution for the care of old, infirm and indigent physicians in Texas We tried the situation out some years ago and found only three who would be in the class to which you have reference, and only one of the three, I believe, could lay any more claim to the munificence of the medical profession than on that of any other group Of course, the medical profession of Texas will join with other states in arranging for the care of worthy physicians who need it and should have it if such a policy is decided on,

but we do not seem to have any very direct need of anything of the kind at the present time

UTAH

Dr F B Steele, Secretary of the Utah State Medical Association, writes that he sent the questionnaires to the seven component societies in his state, but that only one secretary responded He adds, "To the best of my knowledge, we have no indigent physician in Utah"

VERMONT

Six of the ten component county societies in Vermont reported One of the county secretaries answers, 'One' to question 1. A letter of inquiry has not brought a response Dr W G Ricker, Secretary to the Vermont State Medical Society, writes

I am sorry that only six of my county secretaries answered the questionnaire However, I think they represent very clearly a cross section of the situation here in the state

VIRGINIA

Miss A V Edwards, Secretary of the Medical Society of Virginia, reports that thirty-two of the fifty two county societies in Virginia have responded Question 1 is answered in the negative in reports from all but one county In this instance it was answered "Probably two or three" To a letter of inquiry to the county secretary came the reply here condensed

> Without consultation with the doctors whom I had in mind, I could not give names or definite information and do not think it wise to broach the matter to them
>
> One is over 70 unmarried, and I believe has no relatives in condition to care for him He may have some income, I do not know He is too feeble to engage in active practice Several of his professional friends have given him financial aid
>
> Another over 60, married, no family He and his wife have been and still are, in very poor health and he has had financial reverses Both have been in hospitals and sanitariums a good deal of late Doubtful if he will ever be able to practice again Not yet in abject need but may be
>
> The third is a widow of a physician, who was left a widow with two small children a few years ago She has had a terrible struggle to get along and care for them Help to some extent has been extended by associates of the deceased husband

The county secretary adds

> It would appear that a fund available in cases of need would be much more flexible and vastly more useful than a 'home' in the great majority of instances, and would also be much more economical from the standpoint of overhead Supplementing the slender resources of those in need would often permit them to retain their own homes and familiar surroundings, which would be more acceptable to those benefited and more economical Certainly it would be so in the cases I cite

WASHINGTON

No report by counties was received from Washington However, Dr C H Thomson, Secretary of the Washington State Medical Association, says

> In this state an indigent physician, unless he was a member of some fraternal or religious association, could only look to the county poor farm for maintenance in the event that his brother practitioners did not come to his assistance

WEST VIRGINIA

Mr J W Savage, Executive Secretary of the West Virginia State Medical Association, writes that fifteen of the twenty-six component societies reported to his office, and that the reports indicate that there are no indigent physicians in the state All of the aged physicians have families and relatives to support them The county societies that reported cover the larger portion of West Virginia and give a good idea of the state as a whole Mr Savage says It is my personal opinion that the remaining societies failed to report because there were no doctors in their areas who would be claimed as indigents The West Virginia State Medical Association has an indigent fund of more than $6 500 This fund was created by the state association in 1918 and became effective in 1919 Since it was created, only one or two requests for assistance from it have been made

WISCONSIN

Mr J G Crownhart, Executive Secretary of the State Medical Society of Wisconsin, reports that before the questionnaires were sent to him for distribution he had sent a special letter to the president of each county medical society, together with one to all the councilors and officers of the state society Returns from these letters, while not entirely complete, indicated that there were but two physicians in the state who were in need of support One is a drug addict, and the other is amply provided for by close and immediate relatives

The Executive Secretary adds "As to worthy incapacitated and indigent physicians so far as as I can learn by personal letters to every county, there is none in Wisconsin"

WYOMING

Six of the eight component branches of the Wyoming State Medical Society reported One secretary answers "One" to question 1, but further information has not been received

Dr Earl Whedon, Secretary of the Wyoming State Medical Society, in returning the questionnaires, states that the component societies in that state are groups of many counties, and that the five component societies reported represent the conditions all over the state

This report was referred to the Board of Trustees

Appointment of Committee on Public Responsibility

President Wendell C Phillips At the last meeting of the House of Delegates there was a supplementary report of the Reference Committee on Medical Education, as follows

On page 117 of the Handbook, the last three lines reading "A 'Committee on the Public Responsibility of the Medical Profession' be created consisting of one member for each of the councils and bureaus and at least three additional serving for five year term" the committee recommends that for the phrase beginning with the word 'consisting the following be substituted

> Consisting of five members appointed in the usual manner, namely Nominated by the President and elected by the House of Delegates

It relates to several resolutions, one, two or three years ago suggesting a Board of Strategy and some other resolutions that there should be some special consideration of the public responsibilities of individual members of the medical profession

I nominate for that committee, and I have no doubt the committee's work will develop this subject for it looks like a very far reaching subject, Dr Ray Lyman Wilbur Dr Rock Sleyster, Dr G E Follansbee, Dr Harlow Brooks, and Dr William Allen Pusey

On motion of Dr A T McCormack, Kentucky, seconded by Dr Isaac A Abt, Section on Diseases of Children, the nominations of the President were approved

Letter from Conference of State and Provincial Health Authorities

The Secretary read a communication addressed to the Speaker of the House of Delegates from the Conference Secretary of the Conference of State and Provincial Health Authorities of North America, which was referred to the Reference Committee on Hygiene and Public Health

Report on Veterans' Bureau

The Secretary read a communication similar to the one already presented by Dr Horace M Brown, Wisconsin, from Dr B W Black, medical director of the Veterans' Bureau, with respect to an arrangement whereby the medical officers of the Veterans' Bureau may be affiliated in some capacity with the American Medical Association This was referred to the Reference Committee on Rules and Order of Business

Communication on Vital Statistics

The Secretary read a communication from the chief statistician for vital statistics, Bureau of the Census, having to do with the resolution introduced by Dr C E Mongan, Massachusetts, two years ago concerning the differences in registration of births and deaths connected with maternity in the United States and other countries A communication was presented to the House of Delegates last year with regard to this matter, but Dr Mongan made the point that it did not answer the question proposed in his original resolution

Another communication was therefore sent to the Bureau of the Census and this reply received, which was referred to the Reference Committee on Hygiene and Public Health

Foreign Delegates

The Secretary announced the presence in Washington of delegates from the British Medical Association, the Canadian Medical Association, and from medical organizations in Mexico, Cuba, Panama, Columbia and, perhaps, other countries It was suggested that a time be appointed for the reception and presentation of these delegates

The Speaker announced that delegates from other countries would be received and presented to the House on Tuesday morning

On motion of Dr Thomas C Chalmers, New York, seconded by Dr W T Elam Missouri, and carried, the House went into executive session at 12 25 reconvening in general session at 12 38 The meeting adjourned at 12 40

Second Meeting — Tuesday Morning, May 17

The House of Delegates was called to order at 9 30 a m by the Speaker, Dr Fred C Warnshuis

The Secretary read the minutes of the meeting of the House on Monday, May 16 which were approved as read

The following distinguished guests were introduced by Dr John O McReynolds of Dallas, Texas, Vice President

Mr J M Penichet professor of ophthalmology, University of Havana, Dr Helen Ingleby, Dr Almazon of Mexico, Dr De Vega of Cuba, and Dr Martin of Cuba In an address to the House, Dr Penichet presented the status of medicine in Cuba on motion of Dr William Allen Pusey, Illinois seconded by Dr E S Lain Oklahoma, it was voted that the Secretary be instructed to send to the Cuban Medical Society a message expressing support in its fight against socialism and industrialism in medicine

Dr Ingleby conveyed to the House greetings from the British Medical Association

Dr Arthur T McCormack, Kentucky, presented to the House of Delegates Senator Owen of Oklahoma

Dr J D Brook, Michigan, Chairman of the Committee on Credentials, announced a total registration of 149, and asked unanimous consent to waive the rule prohibiting the seating of delegates whose names had not been filed with the Secretary seven days prior to the first meeting, consent was granted, and the delegates affected, from New York and Iowa, were seated

The Secretary read communications from Dr Henry Boswell, delegate from Mississippi, and Dr Seemann, delegate from Louisiana, who were prevented from attending because of flood conditions in their states

Dr Edward B Heckel, Chairman of the Board of Trustees, presented the following names of cities as nominations for the place of meeting in 1928 Kansas City, Mo , Portland, Ore , Minneapolis, Minn

Report of Judicial Council

Dr M L Harris read the report of the Judicial Council

To the Members of the House of Delegates of the American Medical Association

The Council recommends that the resolution introduced by Dr Sloan of Illinois on a proposed amendment to the principles of medical ethics be amended by inserting after the word only" the words "Before proper medical tribunals," so that the sentence shall read "All questions affecting the professional reputation or standing of a member or members of the medical profession should be considered only before proper medical tribunals, in executive sessions or by special or duly appointed committees on ethical relations"

The Council reports on the resolution presented by Dr Bulson of Indiana as follows

The members of the Judicial Council are in sympathy with the sentiments expressed in the preamble to this resolution They feel, however, that the points raised are already well covered in section 4, article 1 of chapter 2 of the Principles of Medical Ethics The Council concurs in the opinion that all interviews or articles of an educational nature on medical or health subjects intended for the lay press or lay audiences should give expression to the consensus of opinion of the medical profession rather than to personal views which may be in conflict therewith, and that such articles should appear preferably under the auspices of this Association, or of one of its component societies or constituent associations

Respectfully submitted

M L Harris, Chairman
G E Follansbee
F W. Cregor
W S Thayer
J N Hall

On motion of Dr M L Harris, duly seconded, the report of the Council was adopted

Report of Reference Committee on Sections and Section Work

Dr Tom B Throckmorton, Chairman, read the report of the Reference Committee on Sections and Section Work

To the Members of the House of Delegates of the American Medical Association

1 The Committee on Sections and Section Work begs to report that it has carefully read and discussed the report of the Council on Scientific Assembly as printed on pages 117-118 of the Official Handbook and presented by the Chairman, Dr J Shelton Horsley, and recommends that the report of the Council be approved in its entirety

2 The committee is in full accord with the traditional custom of the Council in its methods of assigning the hours of the sections so as to alternate the time of section meetings from year to year

3 The Committee recommends that the Council do all in its power to encourage further the development of the Scientific Exhibit and collaboration between that department and various scientific sections, and would suggest the enlistment of the secretaries of the various sections in emphasizing, to those presenting scientific papers before sections, that use be made of the Scientific Exhibit as a means of furthering the work and interest of the Section

Respectfully submitted

Tom B Throckmorton, Chairman
Isaac A Abt
J H Cannon
S P Mengel
Wells Teachnor Sr

Dr Tom B Throckmorton, Iowa, moved that the report be adopted The motion was seconded by Dr Irvin Abell, Kentucky, and carried

Report of Reference Committee on Rules and Order of Business

Dr H P Linsz, West Virginia, read the report of the Reference Committee on Rules and Order of Business

To the House of Delegates of the American Medical Association

A letter from Winthrop Adams, to the House of Delegates, through its speaker, Dr Frederick Warnshuis, relative to admitting physicians connected with the Veterans' Bureau and Public Health Service of the Army and Navy, to membership in the American Medical Association with dues remitted, was referred to this committee

Your committee feels it would be unwise to admit any physicians to membership or Fellowship in the American Medical Association except through the regular channels, as prescribed in the Constitution and By-Laws of the American Medical Association

Respectfully submitted

H P Linsz, Chairman
F A Carmichael
H B Costill
E A Pray
George R Proctor

Dr H P Linsz, West Virginia, moved that the report be adopted The motion was seconded by Dr. Henry B Costill, New Jersey, and carried

Report of Reference Committee on Medical Education

Dr. William Allen Pusey, Illinois, read the report of the Reference Committee on Medical Education:

To the House of Delegates of the American Medical Association:

The report records the work of the Council along the lines of its usual activities. It considers: medical schools and their history during the year; their capacity; enrolment; the number of schools; the supply of physicians; hospitals.

On these subjects the Council presents much information in this report, but particularly in the Hospital Number of The Journal, issued March 12, 1927, the Educational Number, issued Aug. 24, 1926, and in the report on Medical Licensure, in the issue of April 30, 1927. This report to the House of Delegates also considers methods of medical teaching and specialization.

Of these activities in general the committee approves, as it does also of many of the suggestions of improvement in medical education, to which the committee refers. But of some of the positions assumed as accepted and to which support is given by the tenor of the report, and of some omissions, the committee believes that some notice should be taken.

The report indicates that the schools are now operating at their full present assumed capacity. According to the findings of the Council published in The Journal, Sept. 18, 1926, which certainly must represent conditions several weeks before the beginning of the fall term, with a total enrolment of 19,500 in 1926, there were on Sept. 18, 1926, only 224 vacancies; that is less than one and one-sixth per cent of vacancies. In the freshman class there were only twenty-three vacancies; that is, with a freshman class of nearly 6,000, the vacancies then ran a little over one third of one per cent; or, with seventy-one schools, less than one vacancy to each three schools. This is capacity operation (page 107).

In spite of this showing, the report says, "Each year, however, the medical schools are increasing their capacity, whereby it is believed that most, if not all, of the properly qualified applicants will find places." In view of the above showing it would seem that this opinion of the Council is probably overoptimistic (page 107).

The report makes no further suggestion about the desirability of or necessity for increased opportunities for young men to study medicine. There is no intimation of any consideration of the problem of the possible need of a larger supply of physicians. The Commission on Medical Education, established through the Medical College Association, in its preliminary report, shows that physicians are disappearing so much more rapidly than they are being produced that it will probably be 1965—about forty years—before we see again in this country 130,000 practicing physicians, the number which it is estimated we now have, unless the opportunities for studying medicine are very considerably enlarged or the age of graduation lowered. This in spite of the fact that the population of the United States is increasing rapidly and will be about 50 per cent greater in 1965 than now—165 millions against 115 millions now (pages 38, 39). In view of these findings, it would seem that this subject is worthy of consideration and requires constructive suggestions.

The comments on supply of physicians (page 108) are limited to the fact that the number of physicians per population is larger than in European countries which it enumerates, and Japan, and that there will be less need for physicians in the future. There is no reference to the important problem of distribution, although it is our real difficulty now, and one whose importance is becoming more and more insistent from year to year, as our graduates are more and more going into cities and into special practice; in spite of the hopes that we have had for years that this distribution problem would take care of itself.

In making comparison with European countries where the number of physicians is relatively less than here, no consideration is given to the fact that in them medicine for the masses is state and industrial medicine or charity, or nonmedical substitutes such as midwives, and that for them independent personal medical service such as we are accustomed to does not exist. Also, the density of population and the size of the areas of practice make comparisons misleading.

There is no reference in the report that would indicate it has any matters of importance to consider in rural medical service. It does mention "rural districts" once in commending work of foundations in erecting hospitals "in rural districts which have a sufficiently large population to support them"—overlooking the fact that the very thing for which some of these foundations are being criticized is that they are making health programs for these communities which the communities are unable to support after the foundations withdraw their money from them, and which are frankly socialistic or state medicine.

On the subject of medical education as such, the report confines itself to comments on the recent "improvements in medical education," "revolutionized methods of treating diseases," the "present day medical course," and specialization.

The paragraphs devoted to medical education as such contain no recognition of the widespread objections to and criticism of our present medical education and, of course, no constructive suggestions as to how they should be overcome. Medical education is improving; it would be a surprising commentary if it were not; but assumptions of satisfaction with its present state without mention of its defects and the need for their remedy are at best reliance on a half truth. If there are no constructive suggestions to offer—and these are very difficult and should be offered cautiously—there is need for a statement of the defects of the situation in any presentation of it.

On the subject of the present-day medical course, the emphasis is placed on a "comprehensive course" and "no reduction in the general content of the medical course." This can only mean that the Council believes that the amount of instruction which we undertake to give in the medical school should not be lessened. In the opinion of the committee the course should be reduced materially, and we recommend careful consideration of the question of its reduction.

The comments on specialization all have the purport of favoring it. "The present-day course of medical instruction leads directly to specialization" (page 110). No mention anywhere in the report is made of training—or the necessity for training—for any other practice. Has the Council abandoned its views of the necessity for training medical men for general practice? If so, we believe it should reconsider. In our judgment the chief object of medical education should be the training of general practitioners. We believe, however, that there should be a brief course in the more important specialties in the undergraduate years—one sufficient to give an orientation of the important facts of these specialties—and that this could be provided by a drastic and intelligent reduction of the special courses. Preparation for actual practice of specialties should be altogether postgraduate and founded only on a sound general training, preferably in an internship.

The last clause of the last sentence on page 110, namely, "who will not commercialize his opportunity of finding disease when none is present," should be omitted from the report.

The recommendation of the Council under "Requirement of necropsies in hospitals approved for interns," in which insistence is placed on the importance of necropsies as an evidence of the quality of hospitals, is in our opinion wise and its importance should be emphasized.

Respectfully submitted.

J. A. Witherspoon.
Fred B. Lund.
J. C. Litzenberg.
Irvin Abell.
William Allen Pusey, Chairman.

Dr. William Allen Pusey, Illinois, moved that the report be adopted. The motion was seconded by Dr. A. T. McCormack, Kentucky, and carried.

Report of Reference Committee on Legislation and Public Relations

Dr. E. J. Goodwin, Missouri, read the report of the Reference Committee on Legislation and Public Relations:

To the House of Delegates of the American Medical Association:

We recommend that the resolutions introduced by Drs. Blackshear of Louisiana and O'Donovan of Maryland in regard to heroin be referred to the Board of Trustees with the request that the Board secure a reinvestigation of heroin by the Council on Pharmacy and Chemistry in conjunction with the Section on Practice of Medicine and Section on Pharmacology and Therapeutics, and that they report to the House of Delegates with recommendations.

Your Reference Committee recommends that the American Medical Association condemn as unwise and futile any attempt to evaluate a therapeutic agent by legislative fiat, referendum, popular vote, or any similar method. Such evaluation can be made only by investigation and decision of experts having knowledge of that particular subject.

We recommend that the resolution introduced by Dr. Roy of the District of Columbia concerning a medical practice act for the district be referred to the Board of Trustees for appropriate action after examination of the proposed act.

The importance and the efficiency of the Committee on Medical Relief in Disaster was graphically demonstrated in the present disastrous flood affecting the Mississippi valley. The report of Dr. Pusey, Chairman of the Committee on Medical Relief in Disaster, shows that the American Red Cross, the United States Public Health Service, the American Medical Association, the state health departments, and the state and county medical associations, acting as a unit, have provided medical personnel wherever the emergency has demanded. The promptness and economy with which medical relief was extended by those states and counties with active medical societies and disaster relief committees and organized health bodies is noteworthy. Your committee recommends that the Association urge that constituent associations and component societies which have not already established disaster relief committees do so as soon as possible.

Respectfully submitted.

B. R. Shurly.
A. T. McCormack.
A. D. Dunn.
E. J. Goodwin, Chairman.

Dr. E. J. Goodwin, Missouri, moved that the report be adopted. The motion was seconded by Dr. A. T. McCormack, Kentucky, and carried.

Report of Reference Committee on Hygiene and Public Health

Dr. H. M. Brown, Wisconsin, read the part of the report of the Reference Committee on Hygiene and Public Health:

To the Members of the House of Delegates of the American Medical Association:

The Reference Committee on Hygiene and Public Health calls the attention of the American Medical Association to the fact that the classifications of deaths associated with the puerperal state, followed by Registrar General of England and Wales, differs widely from that followed by the United States Census Bureau.

Comparative statements of maternal mortality between the two nations cannot therefore be accurate or dependable.

Your committee on Hygiene and Public Health recommends that the House of Delegates bring this matter to the attention of the United States Census Bureau and urge the importance of securing a strictly uniform definition of maternal mortality by the bureaus of vital statistics of the several nations.

Dr. H. M. Brown, Wisconsin, moved that the report be adopted. The motion was seconded by Dr. Isaac A. Abt, Section on Diseases of Children, and carried.

Dr. H. M. Brown, Wisconsin, read that part of the report of the committee referring to communications from Dr. Matthias Nicoll regarding relations between medical men and health officers. Dr. H. M. Brown, Wisconsin, moved that the report be adopted. The motion was seconded by Dr. A. T. McCormack, Kentucky. On motion of Dr. Isaac A. Abt, Section on Diseases of Children, seconded by Dr. N. B. Van Etten, New York, and carried, that section of the report was recommitted to the Committee on Hygiene and Public Health.

Dr. H. M. Brown, Wisconsin, read the part of the report dealing with toilet preparations:

Your reference committee considers the underlying principle of the resolution of Dr. Wightman to be correct and laudable and that the matter be referred to the Board of Trustees for action.

Horace M. Brown, Chairman.

Dr. H. M. Brown, Wisconsin, moved that the committee's report referring the matter to the Board of Trustees be adopted; seconded by Dr. B. L. Eiker, Iowa. The subject was discussed by Drs. Orrin S. Wightman, New York; D. E. Sullivan, New Hampshire; Orlando H. Petty, Pennsylvania; John E. Lane, Connecticut; Daniel Dougherty, New York; Holman Taylor, Texas, and Dr. H. M. Brown, chairman of the committee. The motion to adopt the report referring the subject to the Board of Trustees was carried.

Report of Reference Committee on Amendments to the Constitution and By-Laws

Dr. Holman Taylor, Texas, read the report of the Reference Committee on Amendments to the Constitution and By-Laws:

To the Members of the House of Delegates:

The Reference Committee on Amendments to the Constitution and By-Laws begs leave to make the following report:

We recommend that section 1, article 5, of the Constitution of the American Medical Association be amended so as to read as follows:

Section 1.—The legislative powers of the Association reside in the House of Delegates. The House of Delegates shall transact all business of the Association not otherwise specifically provided for in this Constitution and By-Laws, and shall elect the general officers. It shall have the power to discipline or expel a member of the American Medical Association or a Fellow of the Scientific Assembly on recommendation of the Judicial Council.

That section 1, chapter IX, of the By-Laws, amended so as to read as follows:

Section 1.—The Judicial Council.—The judicial power of the Association shall be vested in the Judicial Council, whose decision shall be final. This power shall extend to and include (1) all questions involving membership in the American Medical Association or Fellowship in the Scientific Assembly; (2) all controversies arising under this Constitution and By-Laws, to which the American Medical Association is a party; and (3) controversies (*a*) between two or more recognized constituent associations, (*b*) between a constituent association and a component society or societies of another constituent association or associations or a member or members of another constituent association or other constituent associations, and (*c*) between members of different constituent associations. In all these cases the Judicial Council shall have original jurisdiction.

In all cases which arise (*a*) between a constituent association and one or more of its component societies; (*b*) between component societies of the same constituent association; (*c*) between a member or members and the component society to which said member or members belong, or (*d*) between members of different component societies of the same constituent association, the Judicial Council shall have appellate jurisdiction in questions of law and procedure, but not of fact.

The Judicial Council shall have jurisdiction on all questions of ethics and in the interpretation of the laws of the organization.

The Judicial Council may, at its discretion, investigate general professional conditions and all matters pertaining to the relations of physicians to one another and to the public, and may make such recommendations to the House of Delegates or the constituent associations as it deems necessary.

It is recommended that section 4, chapter IV, of the By-Laws, be amended to read as follows:

Section 4.—Time of Election.—The election of officers shall be the order of business of the House of Delegates immediately following the final supplementary reports of the Board of Trustees and Committees, on the afternoon of the fourth day of the Annual Session of the House of Delegates (Thursday); provided, however, that the House of Delegates may change the time of election by action taken at least one day in advance of that to which the election is to be changed, and provided further that the motion to change the time of election shall be supported by two thirds of the delegates registered.

The election of Affiliate, Associate and Honorary Fellows shall immediately follow the election of officers. Not more than three Honorary Fellows shall be elected at any annual session, except on special recommendation of the Council on Scientific Assembly and the unanimous vote of the House.

The following proposed amendment to article 10 of the Constitution, appearing in the annual report of the Secretary, has been referred to this Committee:

The House of Delegates and the Scientific Assembly shall meet annually at times and places to be fixed by the Board of Trustees. A session may be held at any place in the United States.

We respectfully substitute the following and recommend its adoption:

Article 10.—The House of Delegates and the Scientific Assembly shall meet annually at times and places to be fixed by the House of Delegates. Places desiring to entertain the House of Delegates and the Scientific Assembly in annual session shall submit their invitations in writing, together with such data as may be required, to the Board of Trustees, not less than sixty days prior to the annual session at which the selection of the place of meeting is to be made. The Board of Trustees shall investigate or cause to be investigated all such places from which said invitations have been received, and shall make report to the House of Delegates, advising which, if any, of said places possess, or may be expected to furnish, the necessary facilities and conveniences for entertaining the Association and accommodating its various activities The time and place of any of these sessions may, however, be changed by the unanimous action of the Board of Trustees at any time not less than sixty days prior to the time selected for that session A session may be held at any place in the United States

Respectfully submitted,

Holman Taylor, Chairman.
S W Welch
L H McKinnie.
W R Steiner
C T Pigot

Dr Holman Taylor, Texas, moved that the portion relating to amendments to article V, section 1 of the Constitution and section 1, Chapter IX, of the By Laws be adopted The motion was seconded by Dr Albert E Bulson, Jr, Indiana, and carried Dr Taylor then moved that the amendment to section 1, article V, of the Constitution be adopted, seconded by Dr Bulson, Indiana The subject was discussed by Drs E C Thrash, Georgia; Daniel S Dougherty, New York, Thomas C Chalmers, New York, A T McCormack, Kentucky, M L Harris, Judicial Council, J Richard Kevin, New York, J W Van Derslice, Illinois, George E Follansbee, Ohio, L L Sheddan, Tennessee, Isaac A Abt, Section on Diseases of Children, Charles O Donovan, Maryland, Holman Taylor, Texas, and William Allen Pusey, Illinois Dr Pusey moved that the matter be put over for consideration to next year, seconded by Dr J Richard Kevin of New York The motion when put to vote was lost The motion to adopt the amendment was announced carried by a vote of 100 affirmative, 18 negative

Dr Taylor moved the adoption of the amendment to section 1, chapter IX, of the By-Laws, seconded by Dr Arthur J Bedell, New York, and carried

Dr Taylor moved the adoption of that part of the report referring to the amendment to section 4, chapter IV, of the By-Laws, seconded by Dr L J Hirschman, Michigan, discussed by Drs J W Van Derslice, Illinois, Holman Taylor, Texas, H D Wood, Arkansas, and carried

Dr Taylor moved the adoption of that part of the report referring to the proposed amendment to article 10 of the Constitution, seconded by Dr John P DeWitt, Ohio, discussed by Drs J W Van Derslice, Illinois, Holman Taylor, Texas, McLain Rogers, Oklahoma, Arthur J Bedell, New York, and carried

The report of the committee was adopted as a whole on motion of Dr Holman Taylor, Texas, seconded by Albert E Bulson, Jr, Indiana, and carried

The Speaker asked for the opinion of the House with reference to the elections on Thursday afternoon, and it was voted, on motion of Dr Holman Taylor, Texas, seconded by Dr S W Welch, Alabama, that in accordance with the amendment just adopted the elections take place following the business of the House and the reports of Reference Committees

Report of Reference Committee on Reports of Officers

Dr J Norman Henry, Pennsylvania, presented the report of the Reference Committee on Reports of Officers

To the Members of the House of Delegates of the American Medical Association

The committee notes with approval the remarks of the Speaker in regard to the impartiality of the appointment of the reference committee and the handicap under which the Speaker functions because of the incompleteness of the lists of delegates submitted to him It is suggested that the state organizations should follow some method of appointment that would permit of a complete list at least thirty days before the meeting of the parent body

The nursing problem has already been referred to a committee and needs no consideration from this reference committee other than to endorse the principle that the matter shall be handled through the channels of organized medicine

In the same spirit the committee commends the Speaker s reference to the duty of the American Medical Association to standardize and to elevate the practice of medicine and surgery within and without hospitals through efforts of our own association but not through legislative or other agencies This desirable result may be accomplished through already existing committees, and the appointment of another body might well result in duplication of effort

The committee cordially seconds the Speaker's reference to the responsibility of the delegate in whom rests collectively and individually the strength and welfare of our Association

The President deals in the opening of his address with the responsibility of the physician and his relation in matters of concern to the public health Particularly does he dwell on the duty of the physician in the question of the authoritative education of the public through the means of the press and the radio broadcast While fully recognizing this duty, the committee feels that the same rule of ethics that governs newspaper publicity should apply to broadcasting and that the necessary instruction of the public can be obtained without the appearance of the individual broadcaster s name Such principle is in force in many states and the result is obtained without personal exploitation

The committee is in accord with the views expressed with regard to value of health conferences, and also of the survey of public health activities particularly if the principle of seeking to reduce multiplication of similar efforts be made the keynote of such meetings

The committee strongly endorses the remarks of the President with respect to the importance of the cooperative work of the Woman's Auxiliary and trusts that his recommendation that county and state societies should encourage these auxiliaries in all ways in their power shall be carried out

The committee recognizes the valuble suggestion made by the President-Elect as to the value of moral training of those pursuing the study of medicine, and recommends that the suggestion of the introduction of courses on medical ethics be adopted in medical schools throughout the country

Of interest is the formula by which the Judicial Council suggests that a given contract for medical services may be pronounced ethical or the reverse The committee approves of this method in general, and agrees with the Council that each individual contract must be judged on its own merits

The committee understands that the last part of the report of the Judicial Council dealing with membership and expulsion had been given to another committee for consideration

Inasmuch as the Reference Committee on Reports of Officers has been informed during its first meeting that the addresses of the officers have already been published in The Journal and in the public press, it finds difficulty in commenting on these reports in any detail The committee makes this suggestion that this procedure should be modified so that future reference committees should have the opportunity of passing on addresses referred to them before they are given any publicity either in The Journal or in public print The reason for this recommendation is obvious for reasons of policy, for in this way only may these reports go forth with the added authority of the House of Delegates

Respectfully submitted

Charles F Humiston, Chairman.
James N Vander Veer
J Norman Henry
William G Ricker
Albert E Bulson, Jr

Action on the report was taken as follows

Section 1 Speaker's address Portion referring to appointment of reference committees thirty days prior to the annual session adopted on motion of Dr Henry, seconded by Dr Arthur J Bedell, New York

Portion referring to handing of nursing training through medical channels The motion made by Dr Henry, seconded by Dr L H McKinnie, Colorado, to adopt the report was lost

Portion recommending creation of a commission to establish standards of surgery or surgical practice was adopted by motion of Dr Henry, seconded by Dr L J Hirschman, Michigan

Section 2 President's address Portion referring to radio broadcasting Dr Henry moved the adoption of the report, seconded by Dr J N Hunsberger, Pennsylvania, discussed by Drs A T McCormack, Kentucky, President Wendell C. Phillips, Holman Taylor, Texas, and carried

Portion referring to health conferences by various affiliated associations was adopted on motion of Dr Henry, seconded by Dr A T McCormack, Kentucky, and carried

Section 3. Report of the Judicial Council: Dr. Henry moved the adoption of the portion referring to contract practice; discussed by Dr. Seale Harris, Alabama, who gave notice of intention to present a resolution to be published thirty days preceding the next annual session adding to the effectiveness of the report of the Judicial Council; discussed further by Drs. Charles E. Humiston, Illinois, Chairman of the Reference Committee on Reports of Officers; J. N. Hunsberger, Pennsylvania, and adopted.

Section 4. Dr. Henry read the conclusion of the report of the Committee on Reports of Officers, with respect to publishing the address of the officers prior to the annual session, and moved its adoption; seconded by Dr. Arthur J. Bedell, New York; discussed by Dr. Holman Taylor, Texas; the Secretary, Dr. Olin West; Drs. J. Norman Henry, Pennsylvania; Dr. John E. Lane, Connecticut; William G. Ricker, Vermont; Irvin Abell, Kentucky; Charles E. Humiston, Illinois; Albert E. Bulson, Jr., Indiana, and the editor of THE JOURNAL, Dr. Morris Fishbein; the motion to adopt this portion of the report was lost.

The report of the Committee on Reports of Officers was adopted as a whole, on motion of Dr. Henry, seconded by Dr. Walter F. Donaldson, Pennsylvania, with the exception of the two sections that were not adopted.

Reference Committee on Reports of Board of Trustees and Secretary

Dr. Arthur W. Booth, New York, announced that the Reference Committee on Reports of the Board of Trustees and the Secretary was not ready to report.

Report of Reference Committee on Miscellaneous Business

Dr. Albert Soiland, California, read the report of the Reference Committee on Miscellaneous Business:

The resolution introduced by Dr. Bulson regarding the place of holding the annual session was adopted on motion of Dr. Albert Soiland, California, seconded by Dr. J. N. Hunsberger, Pennsylvania.

The resolution introduced by Dr. Bulson with respect to charges for services to insurance and indemnity companies was adopted on motion of Dr. Albert Soiland, California, seconded by Dr. J. N. Hunsberger, Pennsylvania.

Dr. Albert Soiland, California, read the section of the Committee's report relative to approval of the amendment to the U. S. revenue bill:

Your committee feels that the preamble and resolution introduced by Dr. Hines is of sufficient importance to warrant careful and favorable consideration by the Board of Trustees of the American Medical Association, and it herewith recommends that the Board of Trustees transmit this resolution to the constituent state societies for action.

By the Committee. ALBERT SOILAND, Chairman.

Dr. Albert Soiland, California, moved that this section of the report be adopted; seconded by Dr. J. N. Hunsberger, Pennsylvania. The motion to adopt the report, which carried with it reference to the Board of Trustees, was carried.

The report of the Committee as a whole was adopted.

By unanimous consent, at the suggestion of Dr. A. T. McCormack, Kentucky, the committee reports on which formal action was not taken to adopt them as a whole were considered so adopted.

Report of Special Reference Committee on Nursing Education

Dr. Irvin Abell, Kentucky, presented the report of the Special Committee on Nursing Education, reading first the report of the Committee on Grading of Nursing Schools which had not previously been presented to the House:

To the Speaker and Members of the House of Delegates, American Medical Association:

Your committee has carefully reviewed the published report of the Committee on Nurses and Nursing Education as created by the 1926 House of Delegates and has had the privilege of studying the formal report presented by Dr. William Darrach of New York, chairman of the Committee on the Grading of Nursing Schools, the committee which was an outgrowth of resolutions referred to the Council on Medical Education and Hospitals in 1923. The latter committee is composed of representatives of the following national organizations:

The American Nurses' Association.
The American Medical Association.
The American Hospital Association.
The American College of Surgeons.
The American Public Health Association.
The National League of Nursing Education.
The National Organization for Public Health Nursing.

The published report of the Committee on Nurses and Nursing Education demonstrates that the committee in the brief time at its disposal has thoroughly uncovered the dimensions of the problem. Your reference committee, impressed with the many phases of the subject as brought out in the published report, agrees that the problem concerns not only the medical profession and the nursing profession but, most of all, the public at large. We therefore believe that the American Medical Association is fortunate in being associated with the larger committee above mentioned, which is already engaged in the solution of the problem, especially since it is so well represented in that committee by Dr. William Darrach and Dr. N. B. Van Etten. Your reference committee is convinced that the many fundamental weaknesses in the present training program for nurses and the economic difficulties under which graduate nurses are working cannot be corrected until a more exhaustive review of the field has been completed.

We therefore recommend to this House:

First. The acceptance and filing of the report of the Committee on Nurses and Nursing Education; and

Second. The adoption of the following recommendation in the report submitted by Dr. Darrach, chairman of the Committee on the Grading of Nursing Schools, namely:

That the American Medical Association give earnest support in the work of the Committee on the Grading of Nursing Schools and share in the financial program of the work to the extent of $5,000 a year for a period of five years, unless the work should be completed before that time.

Respectfully submitted.

WALTER F. DONALDSON.
LOUIS J. HIRSCHMAN.
ARTHUR J. BEDELL.
E. P. SLOAN.
IRVIN ABELL, Chairman.

Dr. Irvin Abell, Kentucky, moved the adoption of the report; seconded by Dr. Arthur J. Bedell, New York, and carried.

The Speaker referred the report to the Board of Trustees because it entailed an appropriation.

Report on Visiting of County Societies

Dr. Victor G. Vecki, California, moved that the Board of Trustees be asked to report on a resolution presented by him at the 1925 session in Atlantic City having to do with visits to local county and state societies. The motion was seconded by Dr. A. T. McCormack, Kentucky, and carried.

NEW BUSINESS

Resolutions on Physicians' Home

The following resolution was presented by Dr. J. Richard Kevin, New York, and referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The Physicians Home, Inc., six years established in its first eastern unit in New York State, providing for the upkeep and care of incapacitated physicians throughout the United States has appreciated the grave necessity for this magnanimous work; and

WHEREAS, The House of Delegates several years ago recognized this field of helpfulness and by the unanimous vote endorsed the project; and

WHEREAS, The Board of Trustees of the Physicians Home, Inc., recognizing that this whole field of usefulness should be turned over to the American Medical Association for the most successful maintenance of the institution with a view to such homes being established in various sections of the United States; therefore, be it

Resolved, At the request of the Board of Directors of the Physicians Home, Inc., that the House of Delegates recommend to the Board of Trustees of the American Medical Association the acceptance of all real estate, securities and income now in the possession of said Physicians Home, Inc., without remuneration; that while the American Medical Association functions most efficiently for the protection and support of the public, we must not forget that primarily the American Medical Association owes a supreme debt of support to the unfortunate incapacitated physicians.

Resolutions on Form Letters on Periodic Examinations

Dr. C. S. Gorsline, Michigan, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, At the Dallas session of the House of Delegates in 1926 the Board of Trustees was requested by resolution to prepare sets of carefully worded letters as approved models or forms to be sent out by the various county societies to their members and to the lay public in reference to extending and promoting the value of periodic health examinations; and

WHEREAS, At this session there has been presented by said Board only a ruling of the Judicial Council that letters, etc., from individual physicians or groups of physicians which might be construed as soliciting business would be unethical; be it

Resolved, That the Board of Trustees be again requested to prepare approved forms of letters which may be sent out by either county medical societies or county and state health officers to promote to the public the value of periodic health examinations and that said examinations can be made and kept by their own qualified local physicians who are members of the American Medical Assocation, and in this manner help to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations.

Resolution on Disabled Medical Officers

Dr. T. E. Carmody, Colorado, introduced the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, The House of Delegates, American Medical Association, unanimously adopted the following resolution at its St Louis meeting, May 25, 1922:

> RESOLUTION FOR RETIREMENT OF DISABLED EMERGENCY ARMY OFFICERS
>
> WHEREAS, The disabled emergency officers of the army are not receiving the same treatment as the other eight classes of disabled officers who served during the World War in that they are denied the privileges of retirement for physical disability as allowed all other disabled officers, regular and emergency alike, and
>
> WHEREAS, It is obviously unjust and discriminatory to deny to one class of disabled officers the rights and privileges accorded all other classes; and
>
> WHEREAS, There is pending in Congress now legislation to correct this discrimination; therefore, be it
>
> *Resolved,* That the House of Delegates of the American Medical Association urges on the House of Representatives the passage of the Bursum bill at the earliest possible date to the end that the disabled emergency officers may receive the treatment to which they are entitled.

WHEREAS, Legislation mentioned in the foregoing resolution, still pending in the Sixty-Ninth Congress, was known as the Tyson Fitzgerald bill; and

WHEREAS, Legislation of similar text and purpose will be presented to the Seventieth Congress; therefore, be it

Resolved, That the House of Delegates, Seventy Eighth Annual Session, American Medical Association, in convention this 17th day of May, 1927, at Washington, D C, does hereby heartily reaffirm the favorable action taken in previous convention in endorsing the principles of retirement for disabled emergency army officers on a parity with all other classes of disabled officers of the World War now on retired lists, and be it further

Resolved, That copies of this resolution be transmitted to the President of the United States, to the Vice President of the United States, and to the Speaker of the House of Representatives of the United States.

Resolution on Parker and Ransdall Bills

Dr. E. J. Goodwin, Missouri, moved that the House reaffirm its approval of the Parker bill and include approval of the Ransdall bill The Speaker referred the matter to the Committee on Legislation and Public Relations for action at the next meeting of the House.

Resolution on D. P. H. Degree

Dr. Southgate Leigh, Virginia, introduced the following request, which was referred to the Committee on Hygiene and Public Relations:

The Medical Society of Virginia requests the opinion of the House of Delegates as to the advisability of permitting men who hold the degree of Doctor of Public Health, and who are not graduates of medicine, to be appointed to the position of local health officer.

Presentation in Synopsis of Convention Proceedings

It was moved by Dr. Orrin S. Wightman, New York, that a brief synopsis of the proceedings of the present annual session featuring the matters of general interest be prepared by the Publicity Committee under Dr. Fishbein and be sent to the state journals within the next thirty days.

A motion was made by Dr. A. T. McCormack, Kentucky, that when the House adjourn, it adjourn to meet on Wednesday morning at 9 o'clock; seconded by Dr. Edward Livingston Hunt, New York, and carried.

The Speaker ruled that new business could be introduced at the Wednesday morning session.

Communication from National League of Nursing Education

The Secretary read the communication from the National League of Nursing Education, which was referred to the Special Committee on Nurses' Training and Service:

> NATIONAL LEAGUE OF NURSING EDUCATION
>
> May 13, 1927.
>
> *Dr Olin West, Secretary, American Medical Association*
>
> The National League of Nursing Education and the National Organization for Public Health Nursing are receiving an increasingly large number of communications concerning the lack of medical care for maternity patients in isolated, rural districts The many public health nurses who are working in these sparsely settled areas, especially in the South, Southwestern and Northwestern states, find many women who have been delivered without any medical care and frequently with disastrous results. Furthermore, these rural nurses themselves are often called on to attend deliveries, when there is no medical aid available. These nurses are, of course, greatly disturbed by having this work thrust upon them without having had proper training or without license to do such work An increasingly large number of nurses, working in these isolated districts, are making inquiries as to where suitable training in midwifery may be obtained
>
> The boards of directors of the National League of Nursing Education and the National Organization for Public Health Nursing have appointed a committee to study this matter The committee believes that the first step to be taken is to secure the cooperation of the American Medical Association in the consideration of any plan for training qualified public health nurses to become midwives
>
> Appreciating the success which has attended the plan in England of licensing nurse midwives and the support which that has had from the medical profession, and deploring the burdens which are being put upon nurses in this country, without adequate preparation, the establishment of a few centers where such teaching might be given seems indicated
>
> The annual meeting of the National League of Nursing Education will be held June 6 10 next, at Cliff Hotel, San Francisco, California, when a preliminary report will be presented, as well as a round table discussion on the preparation of the obstetrical nurse held
>
> The committee feels very keenly that both the medical and the nursing groups in this country should formulate some plan which will safeguard the lives of mothers in these isolated districts and will, therefore, greatly appreciate an expression of opinion from the American Medical Association concerning this proposed study for presentation at this session
>
> ELIZABETH I MILLER,
>
> Chairman of Committee to Study Need of Midwifery for Nurses.

The meeting adjourned at 1 45

(To be continued)

REGISTRATION AT WASHINGTON

The total registration at the Washington Session was 6,273. Below are given two summaries, one by sections and one by states

REGISTRATION BY SECTIONS

Practice of Medicine	1,805
Surgery, General and Abdominal	1,018
Obstetrics, Gynecology and Abdominal Surgery	342
Ophthalmology	416
Laryngology, Otology and Rhinology	393
Diseases of Children	362
Pharmacology and Therapeutics	59
Pathology and Physiology	163
Nervous and Mental Diseases.	171
Dermatology and Syphilology	167
Preventive and Industrial Medicine and Public Health	194
Urology	224
Orthopedic Surgery	167
Gastro Enterology and Proctology	112
Radiology	246
Miscellaneous	434
Total	6,273

REGISTRATION BY STATES

Alabama	50	Nevada	1
Arizona	4	New Hampshire	8
Arkansas	12	New Jersey	206
California	103	New Mexico	5
Colorado	47	New York	763
Connecticut	96	North Carolina	161
Delaware	21	North Dakota	6
District of Columbia	705	Ohio	372
Florida	34	Oklahoma	34
Georgia	60	Oregon	24
Idaho	7	Pennsylvania	897
Illinois	269	Rhode Island	34
Indiana	112	South Carolina	47
Iowa	51	South Dakota	4
Kansas	36	Tennessee	94
Kentucky	59	Texas	113
Louisiana	37	Utah	8
Maine	27	Vermont	16
Maryland	420	Virginia	394
Massachusetts	235	Washington	8
Michigan	169	West Virginia	120
Minnesota	99	Wisconsin	62
Mississippi	16	Wyoming	6
Missouri	114	Foreign	65
Montana	9		
Nebraska	33	Total	6,273

Medical News

(Physicians will confer a favor by sending for this department items of news of more or less general interest: such as relate to society activities, new hospitals, education, public health, etc.)

ARKANSAS

Doctor Vinsonhaler Appointed Dean.—At a meeting of the board of trustees of the University of Arkansas, Little Rock, May 5, Dr. Morgan Smith resigned as dean of the school of medicine, effective, July 1, and Dr. Frank Vinsonhaler, Little Rock, was appointed to that position. Dr. Vinsonhaler is professor of diseases of the eye, ear, nose and throat at the medical school, and a member of the American Board of Ophthalmology.

CALIFORNIA

State Medical Election. — At the annual meeting of the California Medical Association, April 25-28, Dr. Percy T. Phillips, Santa Cruz, was elected president; Dr. William H. Kiger, Los Angeles, president-elect, and Dr. Thomas Henshaw Kelly, San Francisco, vice president. The council reappointed Dr. Emma W. Pope, San Francisco, secretary.

COLORADO

Society News.—The Larimer County Medical Society entertained the Weld County Medical Society at Loveland, recently; among the speakers was Dr. George P. Lingenfelter, Denver, whose subject was "Physiotherapy."

Health Week. — Denver had its attention called to the importance of health, in the observance of "Health Week," April 24 and May 1, through newspapers, motion pictures, radio exhibits, clinics and speeches. More than twenty-two civic and social agencies cooperated. The general chairman was Dr. James J. Waring; the assistant chairman, Dr. Bertram B. Jaffa, and the acting chairman, Dr. George Walter Holden.

CONNECTICUT

Personal.—Dr. John H. Foster, who recently left China because of the disturbed conditions, plans to go into practice in Waterbury, it is reported. Dr. Foster's address was given as Farmington, Maine.——Dr. Jerome S. Chaffee has been appointed health officer of Sharon.

Large Gift to Yale.—The General Education Board, New York, a part of the Rockefeller Foundation, has pledged a gift of $850,000 to Yale University School of Medicine on condition that a new endowment of $1,150,000 is secured from other sources. The gift was made in the course of the campaign for $20,000,000 being conducted for the university. Abraham Flexner, Ph.D., of the General Education Board, is reported to have said that the gift was offered in recognition of work done at Yale in research and teaching.

The Dodge Lectures.—Sir George Newman, chief medical officer of the British ministry of health, gave four lectures under the Dodge Foundation at Yale University, New Haven, beginning May 23, on the general subject of "Citizenship and the Survival of Civilization." Dr. Newman throughout the lectures illustrated the responsibilities of citizenship by considering their relation to medicine. Lectures under the Dodge Foundation have been given in previous years by William H. Taft, Elihu Root, Lord Bryce and Charles E. Hughes.

State Medical Meeting.—The one hundred and thirty-fifth annual meeting of the Connecticut State Medical Society was held at Hartford, May 25-26, under the presidency of Dr. Frank H. Wheeler, New Haven. Clinics and ward rounds were held at the St. Francis Hospital and the Hartford Hospital each morning, and many scientific papers were presented by physicians of the state with the exception of a paper on the "Treatment of Anemia" by Drs. George R. Minot and William P. Murphy of Boston, and a paper on "Diagnosis and Treatment of Acute and Chronic Empyema of the Maxillary Sinus" by Dr. Joseph D. Kelly, New York. The Hartford City Medical Society entertained the members of the state society at a supper, Wednesday evening, and the annual dinner was held the following evening.——The Connecticut State Medical Society will hold its third clinical congress, September 20-22; the registration fee will be $5. All physicians are invited, and inquiries should be addressed to Dr. Creighton Barker, 129 Whitney Avenue, New Haven.

DISTRICT OF COLUMBIA

Physicians' Portraits.—The senior class of George Washington University Medical School, at a meeting in the auditorium of the District of Columbia Medical Society, April 14, presented to the school oil portraits of the dean, Dr. William C. Borden, and of Dr. John Wesley Bovee, formerly a professor. The president of the university, William M. Lewis, LL.D., accepted the portraits on behalf of the medical school.

FLORIDA

State Society Commends Newspaper.—At the fifty-fourth annual meeting of the Florida Medical Association, West Palm Beach, April 5-6, the house of delegates adopted a resolution commending the Tampa *Morning Tribune* for taking steps to bar quack medical advertising from its pages. The resolution was as follows:

> Whereas, It has come to the attention of organized medicine that one of the most important newspapers of the state, the Tampa *Morning Tribune*, has taken steps to bar all quack medicine advertising, and all other advertising which in their opinion tends to deceive the public, therefore be it
>
> *Resolved*, That the Florida Medical Association heartily endorse this step forward in the interests of the public, and that we, individually, and collectively, pledge our support to the publisher, Mr. S. E. Thomason, Tampa, Florida; that the secretary so notify Mr. S. E. Thomason and send him a copy of this resolution; that the secretary advise the various societies of the state association of this action that they may aid in securing like action from the publishers of various local papers; be it further
>
> *Resolved*, That any other newspaper having taken a similar stand, or in the future taking such a stand, be commended by the Florida Medical Association.

GEORGIA

Society News.—Dr. Champneys H. Holmes, Atlanta, addressed the Fulton County Medical Society, April 21, on "Home Treatment of Tuberculosis," and Dr. James L. Campbell, Atlanta, on "Surgery of the Blood Vessels"; Dr. Rudolph A. Bartholomew addressed the society, May 5, on "Prophylactic External Version."

State Medical Election.—At the seventy-eighth annual meeting of the Medical Association of Georgia, Athens, May 13, Dr. William A. Mulherin, professor of pediatrics, University of Georgia Medical Department, Augusta, was elected president to succeed Dr. Virgil O. Harvard, Arabi, and Drs. Henry M. Fullilove, Athens, and Cleveland Thompson, Millen, were elected vice presidents. The secretary is Allen H. Bunce, Atlanta. The next annual meeting will be held at Savannah. Mrs. Paul L. Holiday, Athens, was elected president of the Woman's Auxiliary of the state medical association, and Mrs. Charles C. Hinton, Macon, president-elect.

All Dental Defects Corrected.—Every white child in the public schools of Athens has obtained a certificate from a dentist stating that all necessary dental work has been completed. The city health commissioner and the director of the Athens Child Health Demonstration state that Athens is the first city to achieve this record. The campaign has progressed to completion since about January 1, following a conference of the departments of health and education and the dentists. There were talks and the distribution of literature in the schools, clubs and churches. The results are attributable, however, largely to the efforts of the school teachers and the cooperation of others concerned. The dentists did much work without charge. Frank C. Wilson, D.D.S., president, Georgia State Dental Society, presented the mayor of Athens with a certificate commemorating the achievement.

HAWAII

Twelve Lepers Paroled.—Following an examination which resulted in the disease being pronounced arrested, twelve patients will soon leave the Kalaupapa leper colony on parole. The Chicago *Tribune* notes that nearly all of them will return to the settlement as employees; two will go to the Philippines, and one each to China, Japan and Corea. Twenty-seven patients in all applied for parole.

Annual Medical Meeting.—The second annual meeting of the Hawaii Territorial Medical Association was held at Queen's Hospital, Honolulu, April 30-May 2, under the presidency of Dr. Archibald N. Sinclair. Among the speakers were Dr. Forest J. Pinkerton on "Chloroform Anesthesia in 10,044 Surgical Operations"; Dr. Carl F. Reppun, "An Analysis of Eclampsia at the Queen's Hospital"; Dr. Gideon M. Van Poole, "Brain Abscess of Otitic Origin"; Dr. Fred K. Lam, "A Survey of Clonorchiasis." There was a clinic on leprosy at the Kalihi Hospital by Dr. Mather H. Neill, and a picnic and a ball game on Sunday.

IDAHO

Personal.—Dr Reilly J Alcorn, Sandpoint, has been appointed chief surgeon of the Alaska railway at the base hospital in Anchorage, Alaska, succeeding Dr Arthur D Haverstock who has been transferred to Vancouver——The physicians of Pocatello gave a banquet recently in honor of Drs Hubert A Castle and Clayton A Hoover, Blackfoot, both of whom have practiced in Idaho for many years

ILLINOIS

Liquor Licenses Revoked.—The district prohibition administrator with headquarters in Chicago recently revoked the liquor permits of the following for violation of the prohibition law and regulations

Dr Milton B Gevirtz, Calumet City
Dr Mardiros H Derian, Calumet City
Dr Louis Tillery, Chicago

Chicago

Dr. Billings Honored.—The French government recently conferred the cross of officer of the Legion of Honor on Dr Frank Billings, in recognition of his work in connection with the memorial to Pasteur to be erected in Chicago Dr Billings, it has been announced, will be the orator at the convocation of the University of Chicago, June 14, his subject will be "Medicine and Human Progress"

Municipal Tuberculosis Sanitarium.—Dr Benjamin Goldberg, who was recently appointed a member of the board of trustees of the Chicago Municipal Tuberculosis Sanitarium, has been elected secretary of the board The sanatorium proper has a staff of twelve physicians and will have, when the addition under construction is completed, a capacity of more than 1,200 beds There are also eight dispensaries located in the congested districts, with a registration of 35,340 patients, and a staff of twenty nine physicians, in addition to the fifty school tuberculosis physicians on the sanatorium pay roll

University News.—The entire collection of books and periodicals on surgery of the late Dr Albert E Halstead has been donated by his widow to Northwestern University Medical School, they will be installed in a seminar room adjoining the Archibald Church Memorial Library and will be known as the "Albert Edward Halstead Surgical Library"——Mr G Herbert Jones, director, Inland Steel Company, has given $250,000 more toward the construction of the George Herbert Jones Chemistry Laboratory at the University of Chicago Mr Jones gave $415,000 for the chemistry building last December

KANSAS

Health Officer Resigns—Dr Ira O Church, health officer of Topeka, has tendered his resignation, effective, May 31, in order to accept the position of health officer of Chaves County, New Mexico, with headquarters at Roswell

State Medical Election.—Dr John A Dillon, Larned, was elected president of the Kansas Medical Society at the annual meeting, Hutchinson, May 3-5, Dr Johnathan B Carter, Wilson, vice president, Dr George M Gray, Kansas City, treasurer, and Dr John F Hassig, Kansas City, secretary, reelected for two years

MASSACHUSETTS

Harvard Students Must Be Vaccinated—At a meeting of the overseers of Harvard University, May 9, it was voted to require a certificate of successful vaccination from all new students allowed to register in any department of the university, beginning with the academic year 1927-1928

Illegal Practitioner Arrested—Herbert C Penny, Boston, was recently arrested for holding himself out as a practitioner of medicine without being registered, and for advertising a place for the treatment of venereal disease He pleaded guilty, April 5, to both charges, and was placed on probation

Doctor Graves Elected to Baker Chair of Gynecology—Dr William Phillips Graves, Boston, has been elected the first incumbent of the Baker chair of gynecology at the Medical School of Harvard University The chair was endowed by Dr William Henry Baker of Boston, who died in 1914 Dr Graves is a graduate of Harvard Medical School, and has been professor of gynecology since 1911

Doctor Walcott Resigns at Harvard—Dr Henry Pickering Walcott, for about thirty-seven years a member of the Harvard Corporation, has resigned at the age of 89 Among other honors which have come to Dr Walcott is the presidency of the Massachusetts Medical Society, of the American Public Health Association, and of the American Academy of Arts and Sciences He was formerly acting president of Harvard College, chairman of the trustees of the Massachusetts General Hospital, and a trustee of the Carnegie Institution of Washington

Society News—Dr Emmet Rixford, professor of surgery, Stanford University School of Medicine, San Francisco, addressed the Harvard Medical School, May 3, on Mechanics of the Production of Fractures"——Dr Charles G Miles has been elected president of the Brockton Medical Society——Dr Fred B Lund was elected president of the Boston Medical History Club at the annual meeting, April 29, Dr Joseph W Courtney read a paper by C J S Thompson, M B E, on 'Surgical Instruments Designed by Lord Lister," illustrated with lantern slides

MICHIGAN

Personal—Dr Edward G Folsom, Mount Clemens, recently completed his fiftieth year in the practice of medicine Dr Folsom has been health officer of Mount Clemens for thirty-five years——Dr Aldred S Warthin, professor of pathology, University of Michigan Medical School, Ann Arbor, was reelected vice president and editor of the *Annals of Clinical Medicine* at the February meeting of the American College of Physicians, and at the April meeting of the American Federation of Experimental Biology in Rochester, N Y, he was elected president of the American Association for Cancer Research

Society News—About seventeen members of the Detroit Surgical Society visited the Mayo Clinic, Rochester, Minn, April 25 26——Dr Frank B Tibbals, Detroit, addressed a joint meeting of the Lenawee County Bar Association and the county medical society recently on 'Cause and Prevention of Malpractice Suits , Dr John B Jackson Kalamazoo, president, state medical society spoke on "Benefits of Organization"——At a recent meeting of the St Clair County Medical Society, Dr Hugo A Freund, Detroit spoke on 'Cardiography', Dr Alexander M Campbell, Grand Rapids addressed the April 7 meeting on "Prenatal and Postnatal Care"——Dr Esli T Morden, Adrian, addressed the March 24 meeting of the Lenawee County Medical Society, Hudson, on 'The Business Man s Cold"——Dr George Van Amber Brown, Detroit, addressed the Highland Park Physicians' Club, May 5, on Developmentally Unfit Infants," illustrated——Luce County Medical Society has become a new unit in the state society, having been organized April 11, Dr Henry E Perry, Newberry, was elected president——Under the auspices of the state medical society, a postgraduate conference was held at Bay City in the Tenth Councilor District, March 31 Seventy-five physicians were present A postgraduate conference was conducted in Cadillac, April 19, and another at Lansing, April 26

MINNESOTA

Society News—Dr Emil S Geist addressed the Minnesota Academy of Medicine, Minneapolis, April 13, on "Fracture of the Hip," and Dr George E Fahr on "Myxedema Heart ' Dr Charles F Nootnagel Jr, addressed the academy, May 11, on "Extragastric Closure of the Pylorus '

Personal—Dr Douglas H Mebane, medical corps, U S Army, recently left Rochester after spending three months at the Mayo Foundation——Dr Horatio B Sweetser has been elected president of the Minneapolis Surgical Society, and Dr Theodore H Sweetser, secretary-treasurer——Dr Wilfred J Hewson has been appointed assistant superintendent of the St Peter State Hospital, St Peter.

NEBRASKA

State Medical Meeting.—At the annual meeting of the Nebraska State Medical Association, Lincoln, May 10 12, there was a symposium on the gallbladder by Drs Elexious T Bell of the University of Minnesota Medical School, John M Mayhew, Lincoln, Roy W Fouts, Omaha, Claude P. Fordyce, Falls City, and George B Dent, North Platte. The surgical address was delivered by Dr Donald B Steenburg, Aurora, and the address on medicine by Dr Harry J Wertman, Milford There was a symposium on diseases of the chest by Drs Earle E Farnsworth, Grand Island; George W Covey, Lincoln, William N Anderson, Omaha, Harry C. Berger, Kansas City, and Casper F Hegner, Denver.

NEW JERSEY

Hospital Drives Over the Top.—The campaign for $2,000,000 for the Orange Memorial Hospital, Orange, which was oversubscribed by several thousand dollars, May 19, is said to be the largest sum raised by public subscription in a suburban community for a hospital The campaign for $850,000 for a new Presbyterian Hospital at Newark which closed, May 20 was also oversubscribed, the total amount being almost $923,000 The new building to be erected at Ninth Avenue and South Ninth Street will more than treble the capacity of the old building

County Society News—Dr Alexander Marcy, Jr, addressed the Burlington County Medical Society April 13, at the Union League Club, Philadelphia, on the life of the late Dr Enoch Hollingshead, a former president of both the county and New Jersey State medical societies, the members were the guests of Dr Irving W Hollingshead at the dinner in memory of his father, Dr John B Carnett also spoke on "Pseudo-Appendicitis" and Dr James I Rugh, Philadelphia, on 'Surgical Tuberculosis'——Dr Howard C Curtis, Morristown addressed the Camden County Medical Society, April 12, on 'Relationship of Types of Human Constitution to Disease——Dr Robert A Kilduffe, Atlantic City addressed the Cape May Medical Society, Ocean City April 5, on 'Laboratory Work as Applied to the General Practitioner' Dr Randolph Marshall, Tuckahoe, who has completed fifty years in the practice of medicine was the guest of the society——Dr Sherman F Gilpin, Philadelphia, addressed the Cumberland County Medical Society, April 5, on mental and nervous diseases——Dr Charles A Gordon, Brooklyn addressed the Essex County Medical Society April 14, on Taking Graduate Education to the Practitioner"——Dr J Parsons Schaeffer, Jefferson Medical College, Philadelphia addressed the Gloucester County Medical Society April 21, on 'The Individual Anatomy of Man as Applied to Practical Medicine and Surgery'——Dr Reginald Burbank, New York, addressed the Hudson County Medical Society April 5 on 'Serologic Diagnosis and Complement Determination in the Arthritides—Dr Grenelle B Tompkins, Flemington, addressed the Hunterdon County Medical Society, April 19 on "Roentgen-Ray Diagnosis of Constipation'——Dr Thomas Grier Miller of the University of Pennsylvania School of Medicine, Philadelphia, addressed the Mercer County Medical Society, April 13, on "Ephedrine with Reference to Its Clinical Value"——Dr. Howard C Taylor, New York, addressed the Morris County Medical Society, April 26, on 'Cancer Control"——Dr Thomas B Lee Camden, addressed the Salem County Medical Society, April 13, on 'Diagnosis of Gynecologic Cases"——The Summit County Medical Society gave a dinner, recently, in honor of Dr Wellington Campbell, Millburn, to celebrate his completion of fifty years in the practice of medicine——Dr Robert Abrahams, New York, addressed the Bayonne Medical Society, April 18, on 'Clinical Miscellany"

NEW YORK

State Medical Election—At the annual meeting of the Medical Society of the State of New York, Niagara Falls May 10, Dr James E Sadlier, Poughkeepsie, was installed as president, Dr Harry R Trick, Buffalo, was made president-elect Drs Joshua M Van Cott, Brooklyn, and Horace M Hicks, Amsterdam, vice presidents, Dr Charles G Heyd, New York, treasurer, and Dr Daniel S Dougherty, New York, secretary, reelected

Resignations at State Hospitals—The April Psychiatric *Quarterly* notes the following resignations of assistant physicians in the various state hospitals since about January 1.

Dr Geoffrey C H Burns, Manhattan State Hospital
Dr Samuel Cohen, Kings Park State Hospital
Dr Louis J Doshay, Manhattan State Hospital
Dr Blanche Elliott Manhattan State Hospital
Dr Paul Levi Gowanda State Homeopathic Hospital
Dr Frank B Lucas, Utica State Hospital
Dr Leo J Palmer, Institution for Defective Delinquents
Dr Eugene Pick Central Islip State Hospital
Dr Curtis Prout Manhattan State Hospital
Dr Anthony F Sava, Brooklyn State Hospital
Dr Herman G Selinsky, Kings Park State Hospital
Dr Claude E Tubb, Hudson River State Hospital
Dr David P Young, Middletown State Homeopathic Hospital

New York City

Chiropractor Fined.—William Overton, a chiropractor at 508 West One Hundred and Twelfth Street, was fined $250, May 9, for practicing medicine without a license, it is reported

Liquor Licenses Revoked.—The federal district prohibition administrator with headquarters in New York City recently revoked the liquor licenses of the following on account of irregular prescriptions

Dr Ward Bryant Hoag
Dr Ralph Knowles
Dr William Charles Willis, Little Neck, L I

Physicians' Golf Tournament.—The first tournament of the New York City Physicians' Golfing Association will be held at the Rye Country Club, Rye, June 10 Eighteen holes will be played, and prizes have been donated for the winners The committee on membership comprises Drs Dudley D Roberts, John G W Greeff, Edward P. Eglee, Harold M Hays and Anthony Bassler

Meeting of Otologists—The American Otological Society held a public meeting at the New York Academy of Medicine, May 20, for a discussion of problems of progressive deafness by the president of the Carnegie Foundation, the chancellor of New York University and Dr Edward B Dench There was an exhibition of the latest hearing aids, and a lantern slide exhibition of the 'Osiso," an invention which is said to convert sound waves into visible images that can be easily read by persons who have been instructed in its use

Dinner Opens Campaign for Funds—A dinner at the Hotel Biltmore, April 29, marked the opening of a campaign for $5,000,000 for the New York Cancer Association to establish a cancer hospital at West End Avenue and Seventy-Second Street The president of the New York Cancer Association, Sanders A Wertheim, contributed $50,000, four other gifts of $5,000 were received Among the speakers were Drs George D Stewart, president, American College of Surgeons, Bird S Coler, commissioner of public welfare, and Isaac Levin, director of the Municipal Cancer Institute.

Employment Bureau for the Disabled—Following a study of the problem of finding work for handicapped men, women and children made by the Russell Sage Foundation and the Jewish Social Service Association of America, four of the largest agencies in New York have combined as far as this service is concerned They are the Institution for Crippled and Disabled Men, the New York Tuberculosis and Health Association, the Jewish Social Service Association and the Employment Bureau for the Handicapped The new service will be called the Joint Employment Bureau for the Disabled, and its headquarters will be at the Institute for Crippled and Disabled Men, 245 East Twenty-Third Street

Appointments and Promotions at Columbia University.—The president of Columbia University announced, April 27, the following changes, among others, in the faculty. Dr Alfred Owre, now dean of the College of Dentistry, University of Minnesota, to be dean of the school of dental and oral surgery and professor of dentistry at Columbia, Samuel R Detwiler, Ph D, of Harvard University, Boston, and Philip E Smith, Ph D of Stanford University, Calif, to be professors of anatomy, Dr George H Ryder, to be clinical professor of obstetrics The following were promoted to professorial grade Dr William E Caldwell, clinical obstetrics and gynecology, Dr Mortimer W Raynor, from assistant professor to clinical professor of psychiatry, Dr James A Corscaden, promoted to assistant professor of clinical gynecology, Dr Harbeck Halsted to assistant professor in clinical obstetrics and gynecology, and Dr Royal C Van Etten to assistant professor in clinical obstetrics and gynecology

OHIO

Dr Bogen Wins California Prize—Dr Emil Bogen, receiving physician at the Cincinnati General Hospital, Cincinnati, has been awarded the prize offered by the California Medical Association, it is reported, for the best essay on clinical research submitted during the year Dr Bogen's essay was on the subject of 'Diagnosis of Drunkenness", this is said to be the second consecutive year that he has won the prize of the California Medical Association, his essay last year having been on 'Poisonous Spiders"

State Medical Election.—At the recent annual meeting of the Ohio State Medical Association, Columbus, Dr Leslie L. Bigelow of that city was installed as president, Dr Charles W Stone, Cleveland, was made president elect, Dr Herbert M Platter, Columbus, treasurer, and Mr Don K Martin, Columbus, executive secretary, Dr Clyde L Cummer, Cleveland, was elected councilor for the fifth district for the unexpired term of Dr Stone, who was elected president-elect, and Dr Philip H Cosner, Newark, was elected councilor for the eighth district

Banquet Without an Orator.—The College of Medicine of the University of Cincinnati announces that at its annual meeting the Alumni Association will give a banquet at the Queen City Club, Cincinnati, June 17, in honor of the emeritus professors of the college. They say, "No orator will grace the occasion." There will be four five minute talks, professional entertainers, special medical moving pictures and dancing. For the free postgraduate week, June 13-18, offered by the college at the request of the Alumni Association, more than a hundred have matriculated.

Toledo Organizes Speakers Bureau.—The Academy of Medicine of Toledo and Lucas County has formed a speakers' bureau to supply qualified speakers on medical subjects before civic organizations and clubs. Any member of the academy capable of assisting in this work may be enrolled in the bureau, which is established to meet the growing demand for information on medical subjects. It is organized under the education committee of the academy, of which Dr. Louis R. Effler is chairman, and will be headed by Dr. Earl W. Huffer. Any organization desiring a medical lecture may communicate with the academy, indicating the subject desired.

Personal.—Dr. Clarence D. Barrett, Mansfield, has resigned as health commissioner of Mansfield and Richland County, effective, May 31, to accept a similar position in Lorain County.——Dr. Benjamin A. S. Stephenson, Logan, has been appointed health officer of Shelby County to succeed Dr. Melville D. Ailes, who became health officer of the city of Akron.——Dr. James G. Blower, Akron, is now president of the state medical board, and Dr. Lester E. Siemon, Cleveland, was recently appointed a member of the board.——Dr. Roy G. Hoskins, professor of physiology, Ohio State University College of Medicine, Columbus, has been granted a leave of absence to be research associate at the Medical School of Harvard University until September 1.

PENNSYLVANIA

Health Officer for Pittsburgh.—Dr. Richard G. Burns has been appointed health officer of the city of Pittsburgh, it is reported, to succeed the late Dr. Carey J. Vaux. Dr. Burns has been in the local health service for about thirty-two years, and for some time has been head of the bureau of infectious diseases.

Society News.—Dr. Oliver H. P. Pepper, Philadelphia, addressed the Westmoreland County Medical Society, April 5, on "Blood Count in Diagnosis and Treatment."——At the annual spring meeting of the Bucks County Medical Society, Dr. Edward J. Klopp of Jefferson Medical College spoke on "Gastric and Duodenal Ulcers." Drs. William T. Sharpless, West Chester, a trustee of the state medical society, Theodore B. Appel, Wilmer Krusen and Charles W. Many, county medical director, gave addresses.

Supreme Court Upholds Tuberculosis Hospital Act.—The state supreme court has upheld the act of March 23, 1925, which provided for the establishment of tuberculosis hospitals by the counties of the state. Justice Schaffer wrote the opinion which held the act constitutional. Appeals from Northampton, Montgomery and Schuylkill counties have questioned the constitutionality of the act. The supreme court decided that when the people of a county had authorized the building of tuberculosis hospitals, the question of building rests with the county commissioners. The act is not mandatory but permissive, and it is for the commissioners to decide whether the tuberculosis hospital should be built.

Philadelphia

Fund for Physical Education.—The board of trustees of the University of Pennsylvania recently received a bequest of about $61,000 under a clause in the will of the late J. William White, providing that the remaining one third of the principal shall be held by the university to be known as "The J. William White Fund for Physical Education and Athletics."

Jefferson Plans New Medical College.—A drive is to be conducted, June 6-14, for $1,500,000 for the erection of a new building for Jefferson Medical College on the north side of Walnut Street between the present college and Clifton Street. The first six floors will be for college purposes, and the use to which the others will be placed has not yet been determined. The present building at Tenth and Walnut streets will be transformed into an outpatient department. At a luncheon, May 16, at the Benjamin Franklin Hotel, the president of the board of trustees, Mr. Alba B. Johnson, outlined the needs of the school and how the funds are to be expended.

RHODE ISLAND

License Revoked.—The state board of health reports that the license of Dr. John B. Coffey, Providence, was revoked, April 14. Dr. Coffey, it is said, pleaded guilty, March 26, to the charge of driving an automobile while under the influence of liquor.

Society News.—Dr. Arthur H. Ruggles, Providence, addressed the Rhode Island Medical Society, March 3, on "Mental Health and Education."——Dr. Robert T. Henry, Pawtucket, has been elected president of the Pawtucket Medical Association for the ensuing year to succeed Dr. Stephen A. Kenney, Valley Falls; at this meeting Judge Fitzsimmons, Lincoln, spoke on "General Welfare"; among the other guests were Drs. Herbert G. Partridge, Providence, president, Rhode Island Medical Society; Frederic V. Hussey and Arthur T. Jones, both of Providence, and Julian A. Chase and Charles H. Holt, both of Pawtucket.

SOUTH DAKOTA

New Superintendent of State Board.—Dr. Park B. Jenkins, Waubay, has been appointed superintendent and executive officer of the South Dakota State Board of Health to succeed Dr. John F. D. Cook. There have been no other changes in the personnel of the board.

Personal.—Dr. Clara E. Hayes, Waubay, director, division of child hygiene of the South Dakota State Board of Health, has resigned her position with the South Dakota State Board of Health to accept a position with the American Child Health Association, New York.

VIRGINIA

Dr. Flippin Appointed Dean.—At the April meeting of the board of visitors of the University of Virginia, Dr. James C. Flippin was appointed dean of the department of medicine of the university; Dr. Flippin has for some time been the acting dean.

Change in Professorships.—Dr. Isaac A. Bigger, Jr., assistant professor of surgery and gynecology, University of Virginia Department of Medicine, accepted the associate professorship of surgery in Vanderbilt University Medical Department, Nashville, Tenn., and took up his duties, May 1; Dr. Stephen H. Watts has resigned as professor of surgery and gynecology at the University of Virginia Department of Medicine, effective, September 1.

Society News.—The three counties, Nottoway, Dinwiddie and Prince George, have organized a tri-county medical society; it is planned to return the individual charters of the county society and to request a new charter to include the three counties. Dr. Edgar W. Young, Petersburg, was elected president, and Dr. William C. Powell, Petersburg, secretary.——Drs. Charles H. Davidson and Reid White, Lexington, addressed the Rockbridge County Medical Society, April 1, on "Tularemia," in which the first cases to be diagnosed on the Atlantic Coast were reported.——Dr. Howard Urbach was elected president of the Richmond Pediatric Society, March 31.

Supreme Court Upholds Sterilization Law.—The Supreme Court of the United States handed down an opinion, May 2, upholding a Virginia state law, approved in 1924, to the effect that certain feebleminded persons may be sterilized by the state for the purpose of relieving the commonwealth of the burden of supporting children of mental defectives. The case in question, it is said, pertained to a feebleminded woman who had been committed to the state colony for the epileptic and feebleminded, who was the daughter of a feebleminded mother and the mother of a feebleminded child. The supreme court said in part, it is reported, that "it is better for all the world, if instead of waiting to execute the degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit for continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the fallopian tubes. Three generations of imbeciles are enough."

WEST VIRGINIA

Evolution Bill Denied Hearing.—The lower house of the West Virginia legislature rejected by viva voce vote, April 13, an evolution bill which had been introduced forbidding the teaching of "any nefarious matter."

Society News.—The Harrison County Medical Society, April 7, endorsed the bill which is before the legislature to provide funds for extending the medical course at the university for four years ——The Fayette County Medical Society held a symposium on pediatrics, Mount Hope, April 12, the speakers being Drs Arthur A Shawkey, Charleston, Kyle M Jarrell, Beckley, and Martin V. Godbey, McKendree. Among the guests were Dr Morrison, New York, who spoke on "Immunization of Children Against Acute Infections" and Dr John Thames, Charleston, who spoke on the "Relation of the Health Officer to the Practicing Physician"——The family of Dr Alfred N Frame has presented his entire medical library to the Parkersburg Academy of Medicine ——Dr William S Magill addressed the Barbour-Randolph-Tucker County Medical Society, Elkins, April 20, on "Prophylaxis and Treatment of Typhoid"——Dr Hunter H McGuire, Richmond, addressed the Eastern Panhandle Medical Society, Martinsburg, recently, on "Incipient Cataract"

WISCONSIN

Personal—Dr Edward J Campbell has been appointed city health commissioner of Oshkosh, at a salary of $3,500, to succeed the late Dr Arthur H Broche, the office of city health commissioner and that of city physician were consolidated at this meeting of the council——Dr Philip Fox, Madison, recently celebrated his eighty-seventh birthday Dr Fox was in active practice until about six years ago——Dr William W Bauer has tendered his resignation as health officer of Racine to accept a position on the staff of the Wisconsin Anti Tuberculosis Association——Dr Clark O Decker has been elected mayor of Crandon——Dr Ernst A Pohle, of the University of Michigan has been appointed professor of physiologic chemistry of the University of Wisconsin and Edward Witzemann instructor in physiologic chemistry, Mayo Clinic, Rochester, Minn, has been appointed to direct 'therapeutic work with radium and x-ray"

Society News—Dr George Elmer Strout, Minneapolis, addressed the Eau Claire and Associated Counties Medical Society recently, on Conservation of Vision'——Dr Otho A Fiedler, Sheboygan, addressed the Manitowoc County Medical Society, April 14, on Hypertensive Heart Disease"——Dr Arthur W Rogers, Oconomowoc, president of the state medical society, addressed the Kenosha County Medical Society, April 19, on "How to Keep Well'——Dr Henry B Thomas, Chicago, held an orthopedic clinic before the Outagamie County Medical Society, April 19, in conjunction with the work of the Wisconsin State Rehabilitation Commission——Dr Peter Bassoe, Chicago, addressed the Milwaukee Academy of Medicine, April 26, on 'Neurologic Aspects of Brain Tumors," and Dr Walter E Dandy, Johns Hopkins Hospital, Baltimore, on "Surgery of Brain Tumors'

CANADA

Hospital News—The new Nickle maternity pavilion at the Kingston General Hospital has been opened for the reception of patients——The board of governors of the Toronto General Hospital announces plans to increase the bed capacity of the hospital by nearly 200 A nurses' home, a pavilion for private patients, and a pathology building are included in the plans of enlargement——McGill University will open an industrial clinic at the Montreal General Hospital this spring

Personal—Dr M Arthur Rousseau, dean and professor of clinical medicine, of the medical faculty of Laval, N B, University Faculty of Medicine, was recently appointed a corresponding member of the Academie de Medecine in Paris, he is the first Canadian physician to receive this honor, on his return from Paris, Dr. Rousseau was guest of honor at a dinner——Col R. St J Macdonald, associate professor of preventive medicine, McGill University Faculty of Medicine, has been made a fellow of the Royal Sanitary Institute, England Dr Macdonald is the author of a book entitled 'Field Sanitation" which is considered official for the Canadian Army Medical Corps——Dr Wilbur H Harris, chief surgeon, Grace Hospital, Toronto, was recently presented with a portrait of himself at a banquet given in his honor——Dr Malcolm R Bow, superintendent, Regina General Hospital, Regina, Sask, has been appointed deputy minister of public health in the Province of Alberta——Dr John A Gunn has resigned as chief surgeon at the St Boniface (Man) Hospital, and been succeeded by Dr Gordon S Fahrni——Dr L Boez, formerly assistant to Professor Calmette and assistant director, Pasteur Institute, Paris, recently came to the University of Montreal to lecture for ten weeks at the new Institut Scientifique Franco Canadienne Dr Boez is professor of bacteriology at the University of Strasbourg, and last year worked with the American Commission which went abroad to study foot and mouth disease

GENERAL

New Prohibition Commissioner.—J M Doran, for many years a government chemist, has been appointed prohibition commissioner to succeed Roy A Haynes, and Seymour Lowman, formerly lieutenant governor of the state of New York, has been appointed to succeed Lincoln C Andrews as an assistant secretary of the treasury in charge of enforcement

Extended Study of Cost of Medical Care.—At a conference in Washington, May 17, of about sixty physicians, sanitarians and economists, a committee was organized which plans to conduct an adequately financed study of the cost of medical care over a period of five years Dr. Ray Lyman Wilbur, president of Stanford University and past president of the American Medical Association, presided at the first session, and Dr Lewellys F Barker, Baltimore, at the second session of the committee The temporary address of the committee is 1724 I Street, N W, Washington, D C.

Society News—Dr. Aldred S Warthin, Ann Arbor, was elected president of the Association of American Physicians at the recent annual meeting, Dr. Campbell P. Howard, Montreal, vice president, and Dr James H Means, Massachusetts General Hospital, Boston, secretary The next meeting will be in Washington, D. C, May 1-3, 1928——Dr. Gordon S Fahrni, Winnipeg, Canada, was elected president of the American Society for the Study of Goiter at the Philadelphia meeting, the society will hold its next meeting in Denver——Dr Henry G Bugbee, New York, was elected president of the American Association of Genito-Urinary Surgeons at the annual meeting, Absecon, N J, May 9-11.

New Medical Directory Lists 164,002 Names.—The tenth edition of the American Medical Directory, which has just been completed, contains the names of 164,002 graduates in medicine in the United States, Canada, Philippine Islands, Hawaii, Alaska, Porto Rico and the Canal Zone This is an increase of 2,644 names over the last edition. There is no other medical directory so complete as the directory published by the American Medical Association. It contains data not only on individual physicians, but also on hospitals, approved laboratories, medical colleges, licensing boards and the laws governing medical practice There is information about boards of health, medical societies, health officers and the government medical services The association sells the directory for $15, which is less than cost

Disease Prevention Among Flood Refugees.—Physicians and other medical personnel engaged in work among refugees from the Mississippi flood had, May 5, administered vaccine against typhoid and smallpox and given malaria preventive treatment to 300,000 persons Physicians and nurses were sent to the flooded areas by many state health departments, the U S Army, the U S Public Health Service and other organizations to assist in this work The *Red Cross Courier* notes there were 323,837 persons in the seven flooded states being cared for by the Red Cross, and that the total was rapidly increasing as levees broke in new places All manner of boats and seaplanes were at work assembling people scattered over hundreds of square miles of submerged lands The Red Cross then had sixty-six concentration camps There were 826 power boats plying the flood waters, and thirty radio stations were maintaining communication with the headquarters in Memphis No serious outbreak of disease had occurred up to May 4 in any of the Red Cross camps, although typhoid had "threatened" in Arkansas

Bequests and Donations.—The following bequests and donations have been announced recently.

Woman's Hospital, New York, $300 000 and a contingent bequest of $1 275 000 by the will of the late Mrs Mary Clark

Northeastern Hospital Philadelphia, $5 000 from Mrs Georgella Simonin and Eugene Simonin in memory of Isaac M Simonin, former vice president of the hospital, $10 000 from Mrs I H West and William L Holmes to endow a room in memory of their mother, and $15,000 from Mr and Mrs Paul E Sutro president of the hospital, and his wife, for the erection of a new children's ward

Tacoma General Hospital, Tacoma, an endowment of $10 000 from Hugh C Wallace formerly ambassador to France, in memory of his son

Mount Sinai Hospital, New York, $177,336, and Montefiore Hospital, New York $50 000, by the will of the late Henry Franklin Elias

Johns Hopkins Hospital, about $250,000, by the will of Mrs Mary H Conklin Baltimore, on the deaths of her sister and niece, for a memorial to her husband to be known as the Daniel E Conklin Memorial Fund

St Luke's, Mount Sinai, Lenox Hill and Montefiore hospitals, all of New York, each $5 000, by the will of Aaron Bachrach

Good Samaritan Hospital, Sandusky, Ohio, $20,000, by the will of Mr Mary Dauch

Presbyterian Hospital Chicago, $10,000 from the estate of the late Arthur B Jones, a trustee of the Marshall Field estate

Beth David Hospital, $15,000, Montefiore Home for Incurables, $5,000, both of New York, by the will of the late Solomon Shapiro

Mount Sinai Hospital and the Hospital for Joint Diseases, both of New York, each $1,000, by the will of Samuel H. Levy.

Misericordia Hospital, New York, $5,472, by the will of the late Mary F. Fitzgerald.

Hospital of Tulane University of Lousiana, New Orleans, $10,000 to establish a memorial bed, by the will of the late Mrs. Mary McCay Schaffter.

Children's Hospital, Birmingham, Ala., $5,000, by the will of Lewis B. Woodruff, New York, in memory of his wife, and $25,000 to the New York Association for the Blind.

Newport Hospital, Newport, R. I., a trust fund of $50,000, by the will of the late Dr. Charles A. Brackett, professor emeritus of oral pathology at Harvard University.

St. Luke's Hospital, New York, $7,500; the New York Association for the Blind and St. Mary's Protestant Episcopal Hospital, each $2,000, and the Harlem Eye and Ear Hospital, $1,500, by the will of Annie McCarty.

St. Luke's Hospital, New York, will receive about $1,470,000 and half the proceeds of the sale of some city real estate through the death of Mrs. Mary A. Scrymser, which constitutes half a trust fund left by her husband.

Columbia University for the John E. Borne Chair of Medical and Surgical Research, $325,000; the Long Island College Hospital, $15,000 to endow two beds, and the Presbyterian Hospital, $10,000, through the appraisal of the estate of the late Mrs. Ellen Mills Borne.

Frankford Hospital, Philadelphia, $6,000, by the will of the late Joseph L. Wilson, to establish and maintain a free bed in memory of Joseph L. Wilson and Mary, his wife.

Visiting Nurse Society, Philadelphia, about $46,000 "to endow a nurse in perpetuity," by the will of the late Anna Elizabeth Vander Veer Rohrman, and $50,000 to the Philadelphia Home for Incurables; $15,000 for the Orphans Society of Philadelphia and $10,000 for the Home for Aged Couples.

Lutheran Hospital, New York, $5,000, by the will of Trina Prigge.

Nassau Hospital, Mineola, L. I., a trust fund of $50,000 under the will of the late Roswell Eldridge.

New York Dispensary, New York, $10,000; St. Luke's Hospital, $5,000 by the will of the late John A. McKim.

Episcopal Hospital, Pennsylvania Hospital and Presbyterian Hospital, all of Philadelphia, each $25,000; St. Agnes' Hospital, $10,000; Jewish Hospital Association, $25,000; Rush Hospital for Consumptives and Allied Diseases, $25,000; White Haven Sanatorium for Consumptives, $20,000, by the will of the late William H. Harrison of Cheltenham.

Mount Sinai Hospital, Maternity Hospital, both of Philadelphia, and Eagleville Sanatorium, Eagleville, Pa., each $5,000, by the will of Helen K. Fridenberg.

Presbyterian Hospital, Philadelphia, $1,600, by the will of Walter Monaghan.

Wills Eye Hospital, $1,000, and the Woman's Hospital of Philadelphia for the heart clinic, the residue of an estate of $5,000, by the will of the late Mary Cunningham.

University of Pennsylvania Hospital, Philadelphia Home for Incurables and the Home of the Merciful Savior for Crippled Children, all of Philadelphia, each $5,000, by the will of Adelaide V. Brunner.

St. Christopher's Hospital, Philadelphia, about $17,000, by the will of Theodore F. Miller.

Home for Consumptives, Philadelphia, $10,000, by the will of Elizabeth C. Lucas.

Mount Sinai Hospital, New York, $5,000, and Montefiore Hospital, $2,000, by the will of Isaac J. Bernheim.

Norwalk City Hospital Association, Norwalk, Ohio, $1,000, by the will of the late Fannie Reed Gilman.

LATIN AMERICA

Medical Congress Postponed.—The Seventh Latin American Medical Congress which was to have been held in Mexico City, May 15, has been postponed to July 15 in order that the new building of the bureau of public health, where the sessions will be held, may be finished.

Gift for Medical Building.—The Rockefeller Foundation will give $650,000 toward the construction of a new $1,500,000 building for the faculty of medicine at São Paulo. As a condition of the donation, the state government has agreed to construct hospitals in connection with the new medical school. The department of the interior of the state at São Paulo has received also from the Rockefeller Foundation $50,000 as the the first instalment of a gift with which to construct an institute of hygiene.

First Session of School of Tropical Medicine.—During the first session of the School of Tropical Medicine of the University of Porto Rico and Columbia University, public lectures have been given by several visiting scientists, the last one in the series May 3, being by Dr. James W. Jobling, professor of pathology, Columbia University College of Physicians and Surgeons, New York, on "Blood Destruction and Regeneration with Special Reference to the Influence of Diet"; Dr. Simon Flexner, director, Rockefeller Institute for Medical Research, New York, gave a lecture in this series, March 8, on "Experimental Epidemiology"; Dr. Martha M. Eliot, New Haven, Conn., of the U. S. Children's Bureau, March 2, "Investigations on Rickets in New Haven"; Dr. A. Watson Sellards, assistant professor of tropical medicine, Harvard University Medical School, Boston, February 22-25, "Bonds of Union Between Tropical Medicine and General Medicine" and "Relation Between Weil's Disease and Yellow Fever"; February 4 and 9, Dr. Juan Iturbe, Caracas, "Schistosomiasis, Trypanosomiasis and Pulmonary Distomatosis in Venezuela," and Prof. Earle B. Phelps, DeLamar Institute of Public Health, Columbia University College of Physicians and Surgeons, New York, January 11, on "The Environment."

Deaths in Other Countries

Jules Boekel, professor of surgery, Strasbourg University, aged 78.——**René Schickelé**, professor of gynecology and obstetrics, Strasbourg University, aged 52.——**J. de Bruin**, professor of pediatrics, University of Amsterdam, aged 65.——**Sir Kailas Chandra Bose**, formerly president of the Calcutta Medical Society, vice president of the first Indian Medical Congress, and a commissioner of the city of Calcutta; the first Indian physician to be knighted, a philanthropist, and a member of the governing body of the state medical faculty of Bengal, January 19, of heart disease, aged 76.——**Karl Ipsen**, professor of forensic medicine, University of Innsbruck, aged 72.——**Karl Stargardt**, professor of ophthalmology, University of Marburg, aged 51.——**Fritz Goppert**, professor of pediatrics, University of Gottingen, February 9, aged 57.——**Prof. Giuseppe Marcarini**, aged 52.——**Prof. Hans Strasser**, teacher of anatomy at the University of Bern since 1887, aged 75.

Government Services

Navy Personals

Lieut. Comdr. Fred L. McDaniel, medical corps, has received the diploma in psychologic medicine conferred by the Royal College of Physicians and Surgeons of England, following an examination by the Conjoint Board in London.——Rear Admiral Edward R. Stitt, Surgeon General, U. S. Navy, received a key of membership from the Phi Beta Kappa Association of Philadelphia, April 19, and from the Alpha Chapter of South Carolina of the Phi Beta Kappa Honorary Fraternity.

Contest—Cash Prize for Best Paper

The Association of Military Surgeons of the United States announces the Henry S. Wellcome Medal and Prize of $500 for the best paper on "In Consideration of the Physical Disabilities Found in Drafted Men and Volunteers of the World War, What Practical Hygienic Measures are Advisable for School Children in the United States?" The contest is open to all medical officers, former medical officers, acting assistant and contract surgeons of the army, navy, health service, national guard, volunteers and reserves, and commissioned medical officers of foreign military services. Competitors should send five copies of their papers to the secretary of the association, Army Medical Museum, Washington, D. C., to arrive not later than September 1, accompanied by a sealed envelop marked on the outside with the fictitious name assumed by the writer and enclosing his true name, title and address. Essays must be between 3,000 and 10,000 words. Should the executive council designate another paper for "first-honorable mention," the writer will be awarded life membership in the Association of Military Surgeons.

Successful Candidates for the Navy

Among about 300 senior medical students in class A schools, seventy-four passed the competitive examination held in January for appointment to internships in the medical corps of the navy, and will be commissioned lieutenants (junior grade) on graduation from the medical schools in June. The next examination of the senior medical students for internships will be January, 1928. Information concerning this service may be obtained from the surgeon general, U. S. Navy, Washington, D. C.

Examination for Entrance to Public Health Service

Surg. Gen. Hugh S. Cumming announces that examinations will be held, August 8, for entrance into the regular corps of the U. S. Public Health Service, at San Francisco, New Orleans, Chicago, and Washington, D. C. Request for permission to take the examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C. Candidates must be not less than 23 nor more than 32 years of age, and graduates of reputable medical colleges; they must, also, have had one year's hospital experience or two years in practice. They must pass all oral, written and clinical tests before a board of medical officers and undergo a physical examination. Successful candidates will be recommended for appointment by the President.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 14, 1927.

The Falling Birth Rate

W. R. Inge, dean of St. Paul's, who is remarkable for his outspoken criticism of political and social conditions, has written on the falling birth rate. Last year, he says, the birth rate of England and Wales was 17.8 per thousand; in 1925 it was 18.3. The maximum was reached in 1877, when the figure was 36. In the years 1886-1890 it had fallen to 31.4; in 1901-1905 it was 28.2; in 1906-1910, 26.3; in 1911-1915, 23.6. In 1920 the return of the demobilized soldiers caused a rise to 25.5; since then the figures have been 22.4, 20.4, 19.7, 18.8, 18.3 and 17.8. The fall, which from 1877 onward had averaged one point every three years, has lately been accelerated. The decline in the death rate has been roughly parallel to the decline in the birth rate, but it is hardly possible that any great further reduction is to be expected. In 1866-1870 the death rate per thousand was 22.4; last year it was under 12. Thus both rates have been halved in fifty or sixty years. The crude death rate, however, is of little use in calculating the real healthiness of the country, because while numbers are growing there is a preponderance of young lives, with an extremely low death rate. Actuarial tables show that in the years 1910-1912 the expectation of life at birth in this country was 51.50 years for males and 55.35 for females. At present the average duration of life for both sexes together is 56 or 57 years. If 56 is divided into 1,000 the quotient is $17\frac{6}{7}$, which exactly corresponds with the birth rate last year. It follows that on the basis of a stationary population an equilibrium has now been reached.

So much for the facts and figures. Where four children were born half a century ago, only two are born today. The decline would be even greater if we excepted the inhabitants of the slums, who by reason of recklessness, ignorance and reliance on government doles still produce large families, by no means of the most desirable type. What are the causes of the declining birth rate? A few writers, of whom the chief is Raymond Pearl of Baltimore, believe that the birth rate follows a regular curve, so that they can calculate when the population of the United States will become stationary, and at what figure. This the dean considers either no explanation at all or a kind of fatalism for which he can see no evidence. He holds it much more probable that the reduction in fertility is voluntary; people no longer have large families because they prefer to have small ones. The reason for the sharp decline in the professional class is manifest. Parents cannot afford to give a public school and university education to more than two or three children, and they wish to give their children the same advantages that they have had themselves. Among the less well-to-do the discomforts of an overcrowded cottage, and the ceaseless drudgery of a servantless household, wearing out the working man's wife, already exhausted by too frequent child-bearing, are the chief motives for family restriction. We are told that there is still plenty of room in some of the new countries. So there is for hardy pioneers who are willing to rough it as our early emigrants did. But we seem to be no longer breeding emigrants of this type. There is no country in the world where the man who fails to make good at home has less inducement to seek his fortunes abroad. A grateful country provides him with "bread and games"; by emigrating, he ceases to be a shareholder in a gigantic benefit society of mutual pauperization. Our unemployed will not go, and we cannot make them. Harold Wright, the author of a handbook on "Population," holds that "the silent pressure of excessive numbers on the food supply is now being felt in the form of unemployment, rising prices, and encroachments on the standard of life in the industrial centers." The enormous increase of population in the nineteenth century was due to the position of Great Britain as the workshop of the world. We exchanged our manufactures for food. If the countries that formerly purchased our commodities now prefer to manufacture for themselves, or if we can no longer supply goods at prices which foreigners are willing to pay, we shall not be able to feed our present population, even if some foreign countries still have grain and meat to export. And the food-exporting countries are filling up rapidly. The economic laws which in the last century favored a very dense population are now operating in the opposite direction. The prospect is that machinery may make life more comfortable for the whole population, but only if the numbers are regulated according to the optimum standard for the time being. It does not seem likely that machinery will make food cheaper and more plentiful. The upshot, according to the dean, is that the reduction in the birth rate is imperatively necessary, and that it gives no ground for anxiety or regret, except for the fact that there is an active dysgenic selection caused by the differential birth rates in different classes.

Deaths Under Anesthetics

A coroner, Dr. Waldo, stated at an inquest that the number of deaths under anesthetics had doubled since 1911. The total number due to ether was larger now than that caused by chloroform. With a view to prevention, he suggested that an analyst's certificate of purity should accompany all anesthetic ether; that physicians should be compelled to give information to the coroner of every death due to anesthetics, and that a research committee should be appointed by the government to consider the whole question of anesthetics and to cooperate with the coroner.

A Statistical Review of National Health Insurance

At the meeting of the Royal Statistical Society, Sir Alfred Watson, the government actuary, made a statistical review of "National Health Insurance." He said that the accumulated funds now approached $600,000,000, half of which was represented by valuation surpluses and cognate reserves, which were in course of application to raise the general level of benefits and to extend their scope. He estimated the number of insured workers in October, 1913, as 10,300,000 men and 4,610,000 women. Ten years later these figures had increased to 10,699,000 men and 4,977,000 women, of whom 930,000 were married. The comparatively small increase among men was explained by the war deaths, numbering over 600,000. The number of insured women had been considerably higher; this section of the contributors has decreased since 1918 by the 540,000 following the exodus from industry of women who took up employment during the war. Sir Alfred estimated that 2,630,000 men and 2,633,000 women had entered insurance between 1919 and 1923, and that 60 per cent of them came in at the age of 16, when the compulsory insurance of those in employment begins; more than 1,800,000 men and 3,000,000 women had gone out of insurance in the same period, 820,000 of the women having left industrial employment on marriage. Among both men and women the claims for sickness benefit fell greatly during the war years, particularly in regard to women, who in 1916-1917 drew less than two thirds of the sum drawn by them in 1913-1914. Since the war claims for sickness benefit had again risen, but the cost in 1925-1926 showed that, on the average, sickness among men was still considerably below the level of 1913-1914. Among women the indications were less satisfactory, the figures suggesting that within a short period the earlier level would again be reached. Comparing the sickness experience of a representative sample of men in the years 1921-1923 with late nineteenth century experience a marked improvement in the health of the community seemed to be indicated, the "rate of sickness" having fallen on the average by about 20 per cent. This was traced to a large reduction, at all ages, in the proportion of the insured who claimed benefit; among men of ages 40 to 45, 160 in 1,000 drew benefit in 1921-1923, against 246 in 1,000 in 1893-1897. The duration of sickness, on the other hand, had increased, the new average at the ages cited being 5.0 weeks per case against 4.3 weeks shown by the older tabulation. Special and not unsatisfactory causes were thought to explain these features. It was doubtful whether there was any real increase in the length of incapacity. Among unmarried women the proportion who fell sick was, as a rule, somewhat less than among men of the same age, but the duration of incapacity was much longer, and on the whole, therefore, the average amount of sickness per insured woman was greater than among men. Among married women, both the number claiming and the duration of the claim were relatively greater than among the unmarried; the duration of sickness benefit in the case of a married woman claimant averaged the very high figure of 8¾ weeks.

Disablement benefit (which is entered on when sickness benefit has been paid for twenty-six weeks) is an increasing quantity among all sections of the insured. This is an expected feature as the scheme grew to maturity, and so far as men are concerned the cost is well within the expectation indicated by the older friendly society experiences; but the extent of the claims of women in respect of disablement benefit causes some concern. Taking men and women together, it is estimated that about 200,000 persons are now permanently disabled and drawing benefit from the approved societies. The claims in the winter months average from 50 to 100 per cent more than the summer minimum. Changes in the birth rate are shown by the claims for maternity benefit. The claims among the wives of insured men in 1919-1923 were 88 per cent of those expected by the financial standard. The birth rate (compared with the married population at the reproductive ages) has fallen, it is estimated, by about 20 per cent since the beginning of the century, but, on the other hand, the proportion of the married in the population has substantially grown, the increase being 20 per cent at the ages 20 to 25, 10 per cent at ages 25 to 30, and 5 per cent or more in other age groups.

Longer Lives

Men in this country are living longer than their forefathers, and women longer than men. According to the latest statistics of the registrar-general the average expectation of life for males in England and Wales increased between 1910 and 1924. The mean length of life for men now is 56.58 compared with 39.91 for the period 1838-1854, while women may expect to live till over 60.

JAPAN

(From Our Regular Correspondent)

April 30, 1927.

Regulations Governing Fish Shops

According to an investigation by the police board, the majority of the fish shops are housed in insanitary buildings, especially in the districts devastated by the earthquake of 1923. There are no glass cases, and during the summer the fish are often covered with flies and dust. Sanitary regulations governing fish markets are now being drafted and will be put in force in the near future. Concrete floors, sanitary refrigerators, glass cases, and clean clothing for the shopkeepers will be among the stipulations contained in the proposed law. Severe punishment will be provided for violation.

Baby Protection Day

"Baby Protection Day" will be observed throughout the country, May 5, on the occasion of the boys' festival, which is celebrated to the great joy of all boys under school age according to the Japanese custom. Posters, pamphlets and handbills will be distributed telling how young babies ought to be fed and nursed. Lectures and motion pictures also will be used.

Prize Winners of the Imperial Academy

The Imperial Academy prizes, the chief attraction in Japanese academic circles, have been conferred on seven scientists including two medical men. The imperial prize was given to Dr. G. Kato for his research on decrementless conduction in nerve; and the imperial wedding commemoration prize, from the Osaka *Daily News,* was granted to Dr. Keizo Dohi for his historical study of syphilis. A protest against the conferring of a prize on Dr. Genichi Kato for his new theory of decrementless conduction was made by Prof. Dr. H. Ishikawa of the Kyoto Imperial University Medical College. He sent an open letter to the president of the academy, adversely criticizing the decision on the ground that the theory was still being discussed and was far from being acknowledged, at least by him. His letter concluded with a question asking whether the academy denied his theory and approved Kato's, and required explanation in case of denial of his academic view. These two scientists debated in the general meeting of the Japan Physiologic Society, held at the Okayama Medical College, April 5, and engaged in heated argument. On the last day of the meeting, both sides conducted experiments to close the question, but they did not come to a satisfactory conclusion.

Sudden Increase of Unwarranted Advertisements of "Patent Medicines"

Since the abolition of the "patent medicine" taxes in 1926, more than a thousand "patent medicines" a month are said to have been registered. Exaggerated advertisements also suddenly increased. The metropolitan police board is urging strict regulation, and representatives are visiting every drug store. Among those taken in custody was a millionaire druggist, whose tuberculosis cures have been sold since 1880. In the fifty-second session of the diet, because of this fact, some physician parliamentarians urged the requirement that the ingredients of the contained substance be printed in detail on the packages.

School Children's Brains Work Best on Friday

The Tokyo municipal education bureau has investigated when the brains of elementary school children work best and came to the following conclusion: The system of one instructor teaching two different classes at the same time causes undue mental fatigue to the children. The subject that causes most fatigue is arithmetic; next comes drawing, and next is hard gymnastic exercise. On the contrary, those which lessen fatigue of the brain and increase efficiency are, first, reading; second, geography; third, history; fourth, natural science. The brain-work of the children is most efficient at half past ten in the morning, but efficiency gradually wanes until noon. The brain works best on Friday, and least efficiently on Saturday. Girls are readily fatigued by arithmetic, but recover in a shorter time than boys.

The International School Hygiene Conference

The international school hygiene conference was to be held in 1917 in Belgium, but owing to the Great War it was not held and has not, even yet, resumed its sessions. Authorities in Japan, taking the initiative in this matter, proposed to the powers the reopening of the conference. The proposal has aroused some interest.

PRAGUE

(From Our Regular Correspondent)

May 1, 1927.

"Patent Medicines" in Insurance Practice

The problem of medical prescriptions in insurance practice has become a serious question. In 1922, 8.75 per cent of all expenditures was for medical prescriptions. The figure went up to 9.82 per cent in 1924. This has happened in spite of contracts between the insurance bodies and the associations of pharmacists by which the prices to be charged to insurance bodies for medicines have been cut down three times in the course of the last five years. These contracts are concerned only with prescriptions that are written out in full. Therefore, to avoid losses those in the drug trade are introducing "patent medicines" into insurance practice. Most of the "patent medicines" contain simple remedies that would cost less by regular prescription. However, "patent medicines" are easy to prescribe and physicians have been influenced by an intensive advertising campaign inaugurated by the pharmaceutic industry. In some insurance districts, 70 per cent of all the prescriptions were of "patent medicines." Nevertheless, insurance practitioners can obtain adequate remuneration for their services only if the insurance bodies function in an economical way. The condition, therefore, is of especial importance to the medical profession at the time when it is fighting for the introduction of the free choice of the insurance practitioner on the part of the insured, for this measure requires an increase in the cost of medical service. As a result of these considerations, the Young Generation of Czechoslovak Physicians has arranged a course for insurance practitioners which should familiarize them with economical methods of modern therapy.

Public Hospitals

At the recent congress of the representatives of public hospitals it was generally admitted that the condition of these institutions is much improved over the critical condition of the postwar period. The income from a special tax was sufficient to cover the deficits. At present, the bulk of the patients are paid for by the insurance bodies, who are obliged under the law to pay the hospital fees for the insured for a period of at least four weeks in the case of necessity. The expenses of another large group of patients are paid by the provincial government. The present current income of public hospitals is just sufficient to cover their running cost; and as the special tax was voted only for the period which would suffice to extinguish the deficits of the public hospitals, it is likely to be revoked in the near future. On the other hand, funds are badly needed for the improvement of equipment and perhaps construction of new hospitals. The number of hospital beds is considerable, but the hospitals are unevenly distributed. In the less wealthy districts, particularly, new hospitals are needed. Therefore, a resolution was adopted at the congress favoring the continuance of the special tax.

French Statistics of Venereal Disease and Emigrants from Czechoslovakia

French medical periodicals have brought out the fact that venereal diseases are on the decrease in most countries but not in France. An investigation demonstrated that the increase of venereal diseases in France is caused by infections of immigrants and that these cases account for the bulk of fresh venereal infections in France. When the new United States immigration legislation was put into effect, the stream of emigration was diverted to France. Large groups of workmen go from Czechoslovakia to France, where they remain as long as work is available and then in most of the cases return home. It was found that many of them are infected with venereal disease. Dr. A. Měska recently discussed which government is actually responsible for these infections. Those who leave the country are not infected with venereal disease. When laborers are emigrating, a medical examination is carried out in all instances. Although some chronic and latent infections may escape detection, it is impossible that acute infections would be passed by. The examination is repeated often by the French authorities in France. It is evident, therefore, that infections which workmen contract and which impair the French statistics of venereal disease are contracted in France. It would be unfair to say that the French milieu is especially favorable to infection with venereal disease. The fact can be explained by the circumstances in which the workmen find themselves after their arrival in a foreign country. It was demonstrated by war experience that an increase of venereal infections follows wherever large numbers of families are disrupted and men are brought into an environment to which they have not been accustomed. This is a sociological phenomenon which has nothing to do with nationality or temperament. The situation of these emigrants resembles in many respects that of seamen, among whom venereal diseases are widespread. Nothing more can be done from the Czechoslovak side than to educate the emigrants to the dangers to which they will be exposed after their arrival in foreign cities and again treating, after their return, those who have been infected. The rest is in the hands of the authorities of the country to which the emigrants have gone.

Practice in Foreign Countries

The *Bulletin* of the Union of Czechoslovak Physicians has inquired into the possibilities of medical practice in foreign countries for graduates of Czechoslovak medical faculties. This has been suggested as a possible outlet for the overproduction of physicians which is taking place in the country. The result of the investigation is disappointing. Civilized countries are practically shut to emigrating physicians because overproduction of physicians seems to be common to all civilized countries. The only opportunities that remain are in the oriental countries. Even there the prospect is not bright. Governmental service is usually reserved to native physicians, who often have been educated in foreign universities and possess first class qualifications. Foreign physicians are therefore limited to the private practice, and the native population is generally so poor that a physician can hardly make his living from the practice among them. Those physicians who can count on a practice among their countrymen in foreign countries are better off, but Czechoslovak colonies in foreign countries are small. The developing of a parctice among the European population in oriental countries presupposes a knowledge of foreign languages and a considerable investment. The practice in the newly developed colonies is difficult because life is hard there and experience in tropical diseases is necessary. Some openings seem to exist for those who perfect themselves in diseases of tropical Africa and Asia, but the conditions are not very alluring. The inquiry has shown that emigration of physicians will not solve the question of overproduction of Czechoslovak physicians and that the remedy must be sought at home.

Local Office and Dispensary Buildings

In recent years, public health and social institutions have been pooling their resources for the erection of office and dispensary buildings. This movement has been successful, but standardization of the types of such buildings would be beneficial. Therefore, a committee was set up by the National

Council of Social Hygiene to draw up tentative regulations for the construction of such buildings. The committee reports that it is inadvisable to build in small communities and that a combination of several small cities is preferable. The best place for such an institution is the seat of the political administration of the district. Plans of buildings suitable for cities of certain size have been worked out which are at the disposal of the local committees.

Nurses in State Hospitals

The ministry of health has issued a decree regulating the working conditions of nurses in state hospitals. This sets a standard for the employment of qualified nurses which other institutions will have to follow. Nurses under 18 years of age may not be employed in state hospitals. They may marry only after they have obtained the permission of the ministry of health. Only a fixed number of positions for nurses has been created by the decree. The probation period is set for five years. Fixed number of working hours has not been specified in the decree. Nurses are obliged to live in the hospital and to take their meals there, for which they shall pay a small fee. They are entitled to an annual vacation of from seven to eighteen days according to length of service. Their salary is to increase according to a scale which allows for ten increases at intervals of three years. Supervising nurses receive a bonus. A three months' leave of absence with pay is granted to a nurse in the case of pregnancy. At the age of 60 years they are entitled to a life pension. The same holds for invalidity resulting from the service. Positions have been created for assistant nurses, who need not have a diploma but for whom working conditions are less favorable. They are not entitled to a pension.

PARIS

(From Our Regular Correspondent)

April 27, 1927.

The Activities of the Anticancer Center in Lyons

Professor Bérard, director of the anticancer center in Lyons, has published an account of the work of the center in 1926. Treatment was given to 286 patients, while 400 others were examined at weekly consultations. The center has the services of some thirty eminent collaborators, possesses $40,000 worth of radium, and has much roentgenographic and diathermic apparatus. It is unfortunate that 60 per cent of the patients reach the institute too late to derive much benefit from the treatment. M. Bérard advises every one more than 40 years of age to be examined two or three times a year by a competent specialist.

The Pulmonary Type of the Plague

The pulmonary type of the plague has been prevalent in Madagascar for the past five years. A communication on this disease was presented recently by M. Girard before the Société de pathologie exotique. The first cases in a given area are but slightly contagious. One finds, at first, in the expectorations of the patients numerous micro-organisms, in which the causative agent is in the minority. Only gradually, and by successive passages through humans, does a high virulence develop. Finally, pure cultures of *B. pestis bubonicae* are found in the expectorations, the other micro-organisms having disappeared. At that time, the disease becomes exceedingly contagious.

The International Conference on Rabies

The international conference on rabies, organized by the health section of the League of Nations, opened, April 27, at the Pasteur Institute. A large number of countries are represented by official delegates, and the directors of the principal antirabic institutes of the world have made a point to attend the conference in person. The following men were chosen as officers: President, Professor Roux; official representatives, Dr. Madsen, League of Nations; Dr. Calmette, France; Dr. Bordet, Belgium; Dr. Kraus, Austria; Dr. MacKendrick, Great Britain; Dr. Bujwid, Poland; Dr. Pfeiffer, Germany; Dr. Zlatogoroff, Union of the Socialist Soviet Republics; Dr. di Vesta, Italy, and Dr. Jitajoma, Japan. The conference will hold morning and afternoon sessions, during the week, at the Pasteur Institute.

A Franco-British Scientific Meeting

The association of otorhinolaryngologic surgeons of Great Britain has just held its annual session at the Faculty of Medicine of Bordeaux, in the clinic of Professor Portmann. Last year, this group of scientists held its annual meeting in Austria, at the University of Vienna. It was in honor of the French otorhinolaryngologists that the British surgeons, in coming to France for the first time, chose Bordeaux as their place of meeting.

The Vulpian Centenary

The hundredth anniversary of the birth of the great French physiologist Vulpian is to be celebrated by appropriate ceremonies held at the Faculty of Medicine, of which he was dean; at the seat of the Société de biologie, of which he served many years as the president, and at the Hôpital de la Salpêtrière, in which he had his service. The celebration will cover a week (May 27-June 2). Foreign countries have been invited to send delegates, and a number of unpublished scientific articles will be presented on the occasion. With this festival, toward the expenses of which the municipal council of Paris has granted $200, will be combined the eighth Réunion neurologique internationale and likewise the celebration of the centenary of the death of Pinel, another physician of the Salpêtrière, who immortalized his name by having been the first to relieve insane persons of their chains, deliver them from close confinement in prisons, and open special hospitals for them.

Homage Paid to Physicians Who Lost Their Lives in the War

A celebration was held at the Faculty of Medicine of Paris to pay homage to the physicians who lost their lives in the World War. It was organized by the Association des anciens médecins des corps combattants, the president of which is Dr. Clovis Vincent, agrégé professor at the Faculty of Medicine, physician to the hospitals of Paris, and, furthermore, a well known neurologist. All the professors and the head physicians of the Service de santé militaire (army medical corps) were present. M. Clovis Vincent, in his address, pointed out that the civilian physicians mobilized for the war had suffered a greater mortality than any other category of officers. He recalled also the example of self-abnegation and the spirit of sacrifice that they had bequeathed to future generations.

Deaths

Dr. Charles Foix, physician to the hospitals of Paris and agrégé professor at the Faculty of Medicine, has died at the age of 41, from a sudden hemorrhage due to a duodenal ulcer. Poix was the author of a number of treatises on neurology, which deal more particularly with methods of cerebral localization. French neurologists based great hopes on his future development, many thinking that he would be a second Charcot.

Gouzien, *médecin inspecteur de la marine*, one of the most eminent figures in naval and colonial medicine in France, has died, his death following very shortly his retirement. He had played an important part in the organization of the sanitary services in the French colonies, at the international congresses and at the international bureau of hygiene.

The physiologist Paul Regnard, who has just died, had been a pupil of Claude Bernard and of Paul Bert. He was a collaborator of the latter in the preparation of their celebrated articles on atmospheric pressure. He had likewise been devoted, along with Dastre, to researches on the nervous system. He was director of the Institut agronomique and member of the Academy of Medicine.

ITALY

(From Our Regular Correspondent)

April 15, 1927

The Successor of Professor Gradenigo

Professor Deodato De Carli has been appointed director of the Clinica Otorinoiatria in Naples, to succeed Professor Gradenigo.

Institute for the Treatment of Adenoidism

With a view to improving the physical and mental development of the child, the government of Rome has recently organized an institute for the treatment of adenoidism, which, in addition to an operating room and a waiting room for patients, contains chambers for the collective inhalation of vapors of halide salts or calcium, or for individual inhalations of various medicinal substances that the patient may be found to need. The director of the new institute is Professor Manciol, who at the dedication exercises, after explaining the purpose and the mode of functioning of the institute, exhibited a scientific film on the treatment of adenoidism.

Improvements to Be Made at the University of Genoa

For the construction of various institutes at the University of Genoa, the national government has authorized a loan of 13,000,000 liras.

Adoption of New Criteria for the Recording of Causes of Death

The first of the year, new criteria for the recording of data relative to vital statistics were adopted, and by a recent circular the president of the Istituto centrale di statistica calls the attention of physicians to the application of the rules so far as they concern them. In order that families may make death announcements to the authorities, the attending physician provides them with a blank, the form of which has been recently somewhat modified. Importance is now attached to the point as to whether the death occurs at the home of the patient or at the hospital, since such records, together with others, serve to establish the percentage of mortality in relation to the actual population of a region. In addition to the record blank has been added a part (entirely new) which refers to infants who die under 1 year of age, and which establishes the kind of food used—whether breast feeding, cow's milk, artificial foods or a mixed diet. Concerning violent deaths, it is necessary to indicate, even though it is a question of suicide or homicide, the cause of death, in a clear manner.

The Death of Leonardo Bianchi

While he was taking part in a discussion on narcotics as a factor in human degeneration, Leonardo Bianchi, the celebrated psychiatrist, died suddenly, February 13. Born in S. Bartolomeo, Benevento, April 5, 1848, Bianchi was graduated at the University of Naples in 1871. He devoted himself for many years (1876-1888) to the study of pathologic anatomy of the nervous system and to experimental researches in vivisection. In 1888 he secured, by competitive examination, the chair of psychiatry at the University of Palermo, and in 1890, after the death of Bonuomo, he was appointed director of the Clinica di Napoli. He founded in Naples a center for neuropsychiatric studies, in which many eminent clinicians received their training. His scientific researches, after his appointment as director of the Clinica di Napoli, were directed to the study of the following subjects: the localization of the highest intellectual functions in the prefrontal lobe; the zones of association; aphasic dementia as the effect of word deafness, and the syndrome of lesions of the parietal lobe (Bianchi's syndrome).

He was at first the editor of the special journal *Psichiatria, neuropatologia e scienze affini* and later became its general manager, the name of the journal being afterward changed to *Annali di neurologia*.

Bianchi served as dean of the medical faculty and for two terms as rector of the University of Naples. He was also the recipient of many other high national and foreign honors. He was made doctor honoris causa by the University of Manchester. He was a member of the principal Italian academies of medicine, member of the chamber of deputies for five terms, minister of public instruction, and minister of the Assistenza Sanitaria. For many years he was "senatore del regno."

BERLIN

(From Our Regular Correspondent)

April 30, 1927.

The Decline in Germany's Birth Rate

In an address before the Deutsche weltwirtschaftliche Gesellschaft, Prof. A. Grotjahn warned against the view that bad economic conditions are the cause of the decline in our birth rate and that when conditions improve the birth rate will rise. In general, economic stress and poor housing facilities may cause a fall in the birth rate, but improvement is not likely to come automatically. The dangerous factor lies in the downward tendency, which was observable in the prewar period and which has since become more accentuated. Fifty years ago, there were forty-two births per thousand married couples, in 1914 the number dropped to twenty-nine, and now it is only twenty-one, and in Berlin only fourteen. The low mortality (today 13 per thousand population) gives the impression that the population of Germany is increasing. But the low mortality is due merely to the fact that the age groups, as a result of the postwar period, which caused an exceedingly heavy mortality among the sick, the war shattered and the aged, have a changed distribution and that the middle age-groups with a lower mortality are at present more strongly represented. The effects of the decline in the birth rate will, therefore, not become so apparent for a number of years. Before the war, the explanation for the decline in the birth rate was the increase in wealth; wealthy persons, it was said, had fewer children. Now the common argument is that lack of means is keeping the birth rate down. The medical man, however, sees the salient factor in birth control. Statisticians, political economists and statesmen whose duty it is to watch over the welfare of the nation ought to give greater attention to this movement. Just as the introduction of the steam engine produced revolutionary changes, so likewise birth control is likely to exert a revolutionary effect on society. Professor Grotjahn advised that all talk of an overpopulation of Germany be stopped, since it offered a dangerous suggestion and implied an excuse for birth control. He called attention to France, which is combating the decline in the birth rate by the application of country-wide economic preventive measures. The French methods, to be sure, are not in all respects applicable to German conditions, but the insurance of the heads of large families by privately conducted insurance organizations would doubtless exert a successful counteracting influence on the present downward tendency of the birth rate.

BUENOS AIRES

(From Our Regular Correspondent)

April 15, 1927.

University Disturbances

Chronic unsettled conditions have prevailed in the universities of this country since the students were allowed to participate in the election of school officers. New acute crises have recently developed in the Buenos Aires and Rosario medical schools. In the Buenos Aires school, a new dean had to be elected by a vote of an equal number of professors, assistant professors and students' delegates. As the professors always divide their votes among two or more candidates and many abstain from voting, as a silent protest against the present system, the result is that the student faction, voting as a unit, always decides the issue. In the recent election Drs. Arce and Lanari were the candidates for the deanship. The campaign was violent, and personal attacks through posters, pamphlets and even improvised journals became the rule. At the election of the students' delegates, a climax was reached, as all kinds of promises were made, voters were brought in automobiles and charges of electoral frauds were made on both sides. Dr. Lanari secured a slight majority in the students' preference vote. On election day at the medical school, the acting dean, Dr. P. Belou, closed the doors to everybody, including professors, pending a decision by the university superior board as to whether the school directing board should also be reelected. The superior board decided the present school authorities should continue to serve until September. The postponement of the elections and the continuance of the school board were taken by the students as evidence of a tendency to frustrate the appointment of their candidate. They therefore forced their way into the school and compelled the acting dean, Dr. Belou, to resign; but the resignation was recalled by Dr. Belou the next day, he claiming that it had been signed under duress. Dr. Romano, the oldest councilor, then became acting dean, against the protest of almost the whole directing board. At this juncture, the superior board ordered Dr. R. Rojas, the rector of the university, to take charge of the management of the school and also of the election. When this was held, eighty-four professors refrained from voting; fifty-nine students' delegates and forty-four professors cast their votes, electing almost unanimously Dr. Lanari, a former dean and a much respected professor. Dr. Arce had withdrawn a few days previously.

At Rosario, a new dean was also elected. Dr. R. Araya, to whom the school owes a great deal, was unable to secure the necessary two thirds of the votes for reelection. Dr. J. A. Gatti was elected dean, and not being the students' candidate, his resignation was demanded. He refused, but had to agree to grant a certain voice to the students in the school management.

Impressions of the United States

Dr. J. T. Lewis, who received a Harvard scholarship from the Rockefeller Foundation, has praised the moral and intellectual environment in American universities. Dr. Lelio Zeno has described enthusiastically his impressions about surgical centers in Rochester and New York City. Dr. P. Jáuregui, in a fifteen days' stay, did not find anything new or interesting. He thinks Argentine physicians will find better teaching in Europe. Prof. P. Escudero visited especially hospitals and clinics devoted to diabetes in order to use the result of his observations in organizing a municipal diabetes clinic. Progress in the United States, he says, is due as elsewhere to work and personal worth, not to money, as some claim. An Argentine physician can learn much if he knows where to go. English is essential, as Americans are unfamiliar with foreign languages. Escudero found something new only in Joslin's service, with its sections of general and orthopedic surgery and training for patients. He found everywhere diet too standardized instead of being studied individually for each patient. What astonished him most was the almost complete ignorance of South American geography, life and culture. In general, in the United States they hardly know the scientific work of Latin countries. Escudero praises the courtesy of American physicians and thinks closer bonds should be established with them.

Outings for Weak Children

The National Board of Education has organized a series of outings for weak children. Each group includes 400 children.

Malaria

The federal system of government often prevents securing prompt and uniform action in health matters. In order to coordinate efforts the secretary of the interior has requested the cooperation of the authorities in the provinces of Salta, Jujuy, Tucumán and Catamarca, which are those suffering most from malaria. Dr. A. Barbieri, chief of the malaria division of the national health department, will visit the different authorities with a view to securing their support. At Tilcara, Jujuy, steps are being taken to organize a country home for children convalescing from malaria.

Plague

Outbreaks of plague have occurred at Caña de Luque and Serrezuela, Córdoba. One was of the pneumonic type and caused eighteen deaths. Prevention and disinfection measures seem to have been effective as new cases were not reported. In order to avoid the development of endemic foci in rats the national health department has organized disinfection stations in every port. It has also tried to interest the railroad companies in ratproofing their platforms and storehouses. These companies, mostly foreign, have shown but little desire to comply, shielding themselves behind the terms of their franchises. At Buenos Aires the health department has put to work trapping squads. The Buenos Aires Public Assistance is also carrying out an antirat campaign.

Trips to Germany

The German steamship companies have begun to organize postgraduate tours to Germany. The first contingent has just returned after a four months' trip. The excursion was headed by Drs. Wernicke, Gollan, Calatroni and others. During their stay at Berlin, Dresden, Nuremberg, Cologne, Munich, Heidelberg and Vienna, the Argentine physicians were much fêted.

Lectures by Foreign Professors

Professor Brumpt of the Paris Faculty of Medicine gave a series of demonstrations and lectures on amebas, spirilla infections and leishmaniosis. According to Brumpt the four nuclei cysts found in Buenos Aires are not always from dysenteric amebas. They often belong to *Ameba dispar*, which he has identified, and also to *A. hartmanni*, so prevalent at Montevideo. Stutzin, privatdozent at the University of Berlin, has arrived to give three lectures on urology. Prof. A. Herlitzka, the physiologist from the Turin medical school, will arrive soon to give lectures on medicine and aviation and other subjects.

Personal

Gen. Julio Garino and Lieut. Col. C. C. Matta of the Army Medical Corps have been appointed delegates to the fourth Congress of Military Medicine and Pharmacy, to be held at Warsaw.—The Rockefeller Foundation has given a fellowship in biologic chemistry to Dr. J. T. Muñoz.—Dr. Angel Gallardo has been made a corresponding member of the Paris Academy of Medicine.

Marriages

Percy Bernard Davidson, Boston, to Miss Christina McDonald A. Held of Evanston, Ill., April 16.

Victor J. Weiss to Miss Mabel M. White, both of Kansas City, Mo., at Dallas, Texas, April 21.

William F. Kelly to Miss Sarah I. Sweeney, both of Philadelphia, February 12.

Enoch H. Adams, Danville, Pa., to Miss Freda Gingher, March 9.

Deaths

Frederick William Parham ⊕ New Orleans; Medical Department University of Louisiana, New Orleans, 1879; professor of general and abdominal surgery, New Orleans Polyclinic, 1888-1924; past president of the Southern Surgical and Gynecological Society, the Louisiana State Medical Society and the Orleans Parish Medical Society; member of the American Surgical Association and the American Association for Thoracic Surgery; on the staffs of the Touro Infirmary and the Charity Hospital; chief sanitary inspector of New Orleans, 1890-1892; aged 71; died, May 6.

Samuel Westray Battle ⊕ Asheville, N. C.; Bellevue Hospital Medical College, New York, 1875; retired as lieutenant junior grade, U. S. Navy in 1884; served for many years with the North Carolina National Guard; formerly member of the state board of health; honorary medical director of the Biltmore (N. C.) Hospital; aged 72; died, April 29, at the Rex Hospital, Raleigh, of cerebral hemorrhage.

Alexander Abraham Weagant, Winnepeg, Man., Canada; McGill University Faculty of Medicine, Montreal, Que., 1888; member of the Associated Anesthetists of the United States and Canada; formerly on the staff of the Protestant Hospital, Ottawa, Ont., and for five years member of the Ontario Provincial Board of Health; aged 61; died, March 3, following a long illness.

Morton P. Dickeson ⊕ Media, Pa.; Medico-Chirurgical College of Philadelphia, 1887; formerly member of the state board of medical examiners and state board of health; physician in charge of a hospital bearing his name; aged 62; died, May 9, at the National Stomach Hospital, Philadelphia, of sarcomatosis.

Frederick Stewart Baron, Zanesville, Ohio; University and Bellevue Hospital Medical College, 1900; member of the Ohio State Medical Association, and the American Academy of Ophthalmology and Oto-Laryngology; aged 53; died, April 24, at the Good Samaritan Hospital.

John Reynolds Brown ⊕ Tacoma, Wash.; Northwestern University Medical School, Chicago, 1899; past president of the Washington State Medical Association; member of the American College of Physicians; aged 62; died suddenly, May 7, of heart disease.

Mary E. Carleton, Ming Chiang, China; Syracuse (N. Y.) University College of Medicine, 1886; a medical missionary in China under the auspices of the Methodist Episcopal Church from 1887 to 1925; aged 69; died, April 18, at Utica, N. Y.

James P. Ellis, Augusta, Ill.; College of Physicians and Surgeons, Chicago, 1890; member of the Illinois State Medical Society; formerly postmaster, police magistrate and mayor; aged 69; died, April 30, of acute edema of the lung.

J. P. Whitehead, Rocky Mount, N. C.; University of Maryland School of Medicine, Baltimore, 1899; member of the Medical Society of the State of North Carolina; aged 54; died, April 11, at a hospital in New York, of acute colitis.

Frank Carlton Coombs, Kingsville, Ohio; Cleveland Homeopathic Medical College, 1900; member of the Ohio State Medical Association; aged 65; died, April 2, at the Huron Road Hospital, Cleveland, of diabetes mellitus.

Henry Smith Mathewson ⊕ Providence, R. I.; Columbia University College of Physicians and Surgeons, New York, 1893; Senior Surgeon, U. S. Public Health Service; aged 60; died suddenly, May 8, of heart disease.

John Payne Browne ⊕ Plainfield, Ill.; Medical Department of the University of Illinois, Chicago, 1905; for seven years president of the school board; aged 62; died, May 3, of progressive muscular atrophy.

Edward Joseph O'Donnell, Los Angeles; Dartmouth Medical School, Hanover, N. H., 1865; Civil War veteran; formerly member of the Kansas State Legislature; aged 91; died, April 6, of senility.

Victor I. Englert, Chicago; Washington University School of Medicine, St. Louis, 1906; member of the Illinois State Medical Society; aged 56; died, April 11, of chronic ethmoid and sphenoid sinusitis.

Idus L. Bradley, Little Rock, Ark.; University of Arkansas Medical Department, Little Rock, 1909; aged 45; died, March 26, at the Little Rock General Hospital, of a gunshot wound.

Syrena Andrews Perry, Webster City, Iowa; Bennett College of Eclectic Medicine and Surgery, 1882; died, April 30, at Bradenton, Fla., as the result of an injury received in a fall.

Henry Collins Rogers, Muskogee, Okla.; Memphis (Tenn.) Hospital Medical College, 1888; member of the Oklahoma State Medical Association; aged 60; died, April 18, of uremia.

Elizabeth Mandell Sturgis ⊕ New York; Woman's Medical College of the New York Infirmary for Women and Children, 1895; aged 55; died, March 22, of pneumonia.

William A. B. Kerr, Cincinnati; Eclectic Medical Institute, Cincinnati, 1899; on the staff of the Evangeline Booth Home and Hospital; aged 62; died, March 10, of pneumonia.

Frank Meikle Brown, Montreal, Que., Canada; McGill University Faculty of Medicine, Montreal, 1924; aged 28; died, May 9, of a self-inflicted bullet wound.

Samuel Maurice Barnes ⊕ Jarbridge, Nev.; Howard University School of Medicine, Washington, D. C., 1891; aged 57; died, February 26, of heart disease.

Warren D. Blatchley, Fort Scott, Kan.; Physio-Medical Institute, Cincinnati, 1877; aged 76; was found dead in the bathroom, March 22, of heart disease.

Charles Chambers Cocklin ⊕ Harrisburg, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1894; aged 64; died, May 7, of pneumonia.

Howard Lawrence Coles, Tarrytown, N. Y.; New York Homeopathic Medical College and Hospital, 1895; aged 59; died, May 8, of heart disease.

Emelious A. Cox, Teague, Texas (licensed, Texas, under the Act of 1907); aged 53; died, in February, following an operation for appendicitis.

Howard S. Gordon, Nuevo, Calif.; Kansas City (Mo.) Medical College, 1878; aged 74; died, January 24, at Santa Ana, Calif., of paralysis.

William J. McCurdy, Memphis, Tenn.; University of Georgia Medical Department, Augusta, 1883; aged 67; died suddenly, in April.

Emil E. Tanner, Milwaukee; Wisconsin College of Physicians and Surgeons, 1898; aged 60; died, February 27, of diabetes mellitus.

Walter S. Blaisdell, Punxsutawney, Pa.; College of Physicians and Surgeons, Baltimore, 1890; aged 60; died, April 28, of heart disease.

G. H. Dye, Mill Creek, Okla.; University of Georgia Medical Department, Augusta, 1892; aged 79; died, April 4, of heart disease.

Merritt Caldwell Bragdon, Evanston, Ill.; Hahnemann Medical College of Philadelphia, 1873; aged 77; died, May 10, of pneumonia.

Jason S. McCants, Osceola, Ark.; Atlanta Medical College, 1866; Confederate veteran; aged 85; died, April 30, of heart disease.

Mon Fong Young, Kansas City, Mo.; South China Medical College, Canton, 1889; died, February 26, of cerebral hemorrhage.

Nathaniel Hawthorn Keyes, Covington, Tenn.; Meharry Medical College, Nashville, 1911; aged 47; died, April 24, of nephritis.

John C. Testerman, Jefferson, N. C. (licensed, North Carolina, year unknown); aged 68; died, April 23, of heart disease.

Wiley W. Foust, Robbins, Tenn.; Tennessee Medical College, Knoxville, 1895; aged 54; was shot and killed, March 5.

W. O. Denman, Greenup, Ill.; Eclectic Medical Institute, Cincinnati, 1874; aged 76; died, April 24, of myocarditis.

Arthur B. McGill, Cincinnati (licensed, Ohio, 1896); aged 83; died, April 24, of mitral insufficiency.

Correspondence

HELMINTHIC THERAPY

To the Editor:—I have read with great interest "A Contribution to Helminthic Therapy," by M. Fernán-Núñez (THE JOURNAL, March 19).

Dr. Núñez's results represent a careful study which is concisely and attractively presented. I am in accord with all his conclusions, but feel that Conclusion 6 should be amplified. He states that:

> Oil of chenopodium by intramuscular or intravenous injection is specific against *Trichocephalus* and *Oxyuris*, the two most difficult nematodes to eliminate.

The drug is specific for these parasites if given intravenously or intramuscularly, but it is also *very toxic.*

We have been using oil of chenopodium for about ten years in the treatment of helminthiasis and have studied this drug carefully. Since the drug is so specific in its action on nematodes, Pessoa and I, working in Brazil, hoped that it might be possible to use the drug in the treatment of parasitic nematodes that invade the circulation, such as in filariasis and trichinosis. We therefore experimented on dogs by administering chenopodium intravenously and examining the dogs by autopsy at varying periods after injection. We already knew from clinical and pathologic experiments that the drug when given by mouth in treatment of hookworm disease might be very toxic if absorbed into the circulation. When we treated dogs with chenopodium intravenously we found that immediate and very severe symptoms of intoxication were produced. On autopsy we determined that serious injury had been caused to the tissues of the brain. The drug often produced petechial hemorrhages; sometimes these hemorrhages were extensive and diffuse. Hemorrhages sometimes occurred in the lungs. Under these circumstances we felt that the drug could not be used with impunity by either the intravenous or the intramuscular route, and gave up the possibility of its employment in the case of filariasis or trichinosis.

In the meantime, in 1921, one of our staff, Dr. S. M. Lambert, working in the Far East, had experimented with intravenous and intramuscular injections of oil of chenopodium in a few human cases. In Dr. Lambert's experiments, severe toxic symptoms were produced with from 1 to 2 cc. of oil of chenopodium given intravenously. The most striking symptoms were marked slowing of the pulse, immediate syncope, marked salivation, hiccup and prolonged vomiting. Prostration was pronounced and continued over several hours. In Dr. Lambert's cases the drug was found very effective in the removal of *Trichocephalus* and *Oxyuris*, but the method was not effective in removing hookworms or *Ascaris.* In view of the extreme severity of the toxic symptoms, the experiments were not continued.

Dr. Núñez notes on page 904:

> In susceptible patients, intravenous injections of *any substance* may produce attacks of syncope, with slowing of the pulse, and at times vomiting and hiccup. Therefore, in intravenous injections of oil of chenopodium, one should observe the same precautions as in any other intravenous treatment.

Apparently the patients treated by Dr. Núñez had toxic symptoms similar to those noted by Dr. Lambert; namely, syncope, slowing of pulse, hiccup and vomiting.

Now *Trichocephalus* does not, as a rule, produce severe or extensive lesions. It is a very common parasitic infection in the United States and is, in fact, one of the most cosmopolitan of all intestinal helminths, probably *the most widely distributed,* except *Ascaris.* In our work in Alabama, Florida and Tennessee during the past three years we have seen many thousands of individuals affected with this parasite but in no instance did we observe any symptoms that could be attributed to the worm. There are many cases on record, of course, in which definite clinical symptoms have been shown to have been produced by this parasite; but in view of the fact that, by and large, the disease causes relatively little harm, we feel that it is an unwarranted procedure to recommend intravenous or intramuscular injections of oil of chenopodium in the treatment of the disease.

W. G. SMILLIE, M.D., New York.

THE USE OF CATHARTICS

To the Editor:—I appeal to the fountainhead of medical knowledge for information on a subject of greatest personal and community importance. Shall I take a physic? And shall I give a physic to practically all my patients? I have not taken a physic for more than fifteen years and am in perfect health. My intestinal exit operates as faithfully as the inlet, with an almost unvarying ratio of one to three. Traffic occasionally slows up a bit and as a consequence terminal unloading facilities may be put to some test, but this is never extreme and there have been no failures nor needed repairs. Once in a long time I have a cold but in no instance has a cold ever slowed up deliveries. Years ago I always took a physic for my colds, which always did two ugly things to me: They always gave me a bellyache and disturbed my regular evacuating habits. My colds without physics are just as brief as those subjected to the foregoing complications.

Now as to my patients. They all want a "thorough cleaning out" and a change in diet. Advances in scientific medicine and a group of diet trade journals have put a lot of discontent in the minds of my patients about what they should eat in order to be able to live, and, as the last congress adjourned without providing any new foods, I am frequently distressed with my inability to supply new formulas and combinations; but I am not now asking for any relief in this particular. However, I do want enlightenment on the contention that if the patient suddenly shows a little fever or a subnormal temperature, or restlessness, or tympanites or a collapsed abdomen, or frequency of bowel movements or a total stoppage, or numbness of the first three fingers on the right side, or anorexia, or a gluttonous appetite, or nausea, with or without vomiting, or a sudden dislike for the male parent, that such a patient should at once have a physic. And if so, what? and when? and how long?

A new treatise on skin diseases just came to my notice, and in going through it in a quick review, my memory may not serve me perfectly but I can now recall just one condition that did not require a "purge," a "physic" or a complete overhauling of the entire eliminating machinery, and that was freckles. I was pleased, as I have freckles and it may be safe to go right on neglecting my bowels as heretofore with safety. I have no more trouble keeping my bowels regular than my nose Roman, and I have about come to the conclusion that, colds or no colds, I need plastics for my nose just as frequently as physics for my bowels, and that's that.

Such limited reading of last editions as I do gives me scant support for my aversion to purges and "thorough cleaning out of the intestinal tract." My frequent contact with physicians convinces me that I do far less cleaning out than they do, and when it comes to toning up a liver with laxatives I am almost a total failure. I try. In this community one simply must be able to do considerable in the way of toning up livers. It seems that we live in the toneless liver belt; and since Marshall Field established that the customer is always right, we must tone 'em up as per general request, or they will get another tuner. I do not know whether the people or the physicians established this belt, but it's here all right and we live in the center of it It is not without its advantages as I am planning to send both of my girls away to school, but I am losing confidence in my toning abilities At a recent meeting of our society I informed my confreres (you may be surprised that there are confreres this far from a large medical center) that I was making no effort to transform my "cold" cases into dysentery cases, and now I wish I had not for I fear I lost caste or something One of my confreres recently purchased a full barrel of aromatic cascara Do you think he got enough?

In your reply you treat lightly my personal problem so I have practically decided to maintain the status quo, but I am very much interested in the present attitude of advanced medicine with regard to laxatives for bunions, etc I am of the opinion that there are something like a hundred thousand of your readers interested in this subject

What laxative works best in a poultice?

E O Harrold, M D, Marion, Ind

"INTERNATIONAL HEALTH INSTITUTE"

To the Editor —I was much surprised and humiliated in looking through The Journal, April 30, to find on page 1435, under the "Propaganda for Reform," your investigation of the International Health Institute, with my name listed as on the advisory board

It is true that I did send in my name, signifying my willingness to be examiner for them, but of course had no idea that it was any such a layout as The Journal has proved it to be I took this step without investigating the matter at all for which I am certainly sorry, and I am enclosing a letter which I have written to the International Health Institute asking them to take my name off the reference board

J Severy Hibben, M D, Pasadena, Calif

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed Every letter must contain the writer's name and address, but these will be omitted, on request

DISTURBANCES OF THE COCCYX

To the Editor —A patient of mine, a married woman with two children, complains of symptoms of coccygodynia I feel that this diagnosis is correct The case is of at least three years' duration, and while not disabling is at times very uncomfortable While I could refer her to the city for further advice, I thought before doing so I would obtain from you the following advice 1 What is the usual treatment (mention the use of diathermy as I have such apparatus)? 2 Is surgery successful, and is the convalescence an unusually painful one? 3 All considered, what is the best treatment for a case of two or three years' standing? 4 Roentgen ray and palpation do not seem in this case to reveal any deformity, yet the patient is not a neurasthenic

Lee W Paul, M D, Ilwaco, Wash

Answer —The coccyx represents the remains of the anthropoid tail, for which reason it is often referred to as the 'tail bone" Its function in man is to afford attachments to muscles These do not, however, suffer by its removal

The anatomy of this region is briefly as follows The coccyx consists of four segments, joined together, making a cone shaped structure which articulates above with the sacrum, forming the sacrococcygeal joint Four important muscles are attached to the coccyx the gluteus maximus posteriorly, the coccygeus anteriorly, the sphincter ani to the tip in front, and the levator ani to the tip behind The sacrococcygeal ligaments are found above The nerve supply of this region is derived from the posterior divisions of the coccygeal and second, third, fourth and fifth sacral nerves plus the anterior divisions of the fifth sacral and the coccygeal nerves

The most important clinical disturbances of the coccyx are "dislocation," tumors and disease, the first of which is so much more important than the other two that it alone will be discussed

Symptoms of "dislocation" of the coccyx are pain, coccygodynia, especially on sitting Patients complain of inability to sit through a movie show or a theater performance, of pain while riding horseback, and so on They must squirm and twist to be comfortable Many patients complain of pain while defecating Roentgenograms often do not reveal demonstrable pathologic changes and the surgeon must rely on the history and physical examination The history is usually that of a fall and forcibly sitting down, or of a blow or kick Many patients have tried hot sitz baths and sitting on a rubber ring, with variable relief

Rectal examination is of value With the patient lying on the left side with the knees and hips flexed, the right index finger is inserted into the rectum and the thumb placed over the coccyx outside that structure If there is abnormal mobility at the sacrococcygeal articulation and accompanying sensitiveness and tenderness, the diagnosis is made.

The pathologic changes are usually structural, but cases of tuberculosis have been reported and tumors, especially teratomas, are often found in this region Many patients with coccygodynia have arthritis of the lumbosacroiliac region and it is important to bear in mind that removal of the coccyx does not cure the arthritis higher up. The operative relief in selected cases should be constant

The treatment is operative A midline incision is made in the median raphe, with a finger of an assistant constantly in the rectum as a guide, a careful dissection is made and the coccyx is removed at the sacrococcygeal joint Two or three deep and two or three superficial silkworm sutures and collodion-gauze dressings suffice.

PETECHIAE — LACTIC ACID MILK — HAINES' TEST FOR SUGAR

To the Editor —1 I have a patient who develops typical petechiae, which occur on the left side of the neck and chest and the left anterior axillary fold They occur with almost perfect regularity every two weeks The patient believes that they are more likely to occur when she is very tired, but also states that they occur just prior to or just after the menses. There is no rise of temperature There are no constitutional symptoms other than perhaps a little soreness of the muscles, and maybe some numbness of the left arm Petechiae are not found elsewhere on the body The heart is normal, no murmurs being heard The patient first noticed the petechiae about two years ago, or shortly after the birth of a healthy child The physical observations, except for retroversion and a slight erosion of the cervix, are negative Could you tell me what their cause might be and their significance? 2 Please give me a formula for making lactic acid milk 3 Recently in testing urine with Haines' solution, I obtained a decolorization only when using several cubic centimeters of urine I thought the specimen positive, since the specific gravity was well over 1 030 I emptied the tube and without washing it put in more Haines' solution to retest I was surprised to obtain a complete reduction when the solution boiled without the further addition of urine I then emptied the tube, washed it thoroughly and retested, finding that a single drop of the specimen gave a complete reduction of Haines solution, but that a decolorization only was obtained when several cubic centimeters of urine were used Since then this has occurred with urine from a second diabetic patient How is this explained? Please omit name

M D, South Dakota

Answer —1 Such a one sided recurrent petechial eruption suggests some local blood vessel involvement, the attacks being brought on, perhaps, by periods of low blood pressure Further study with this in mind, a search for focal infection and a careful study of the blood to rule out the possibility of leukemia would seem to be in order It is assumed that the patient is on a proper diet and that she is not taking drugs that might bring on skin hemorrhages

2 Formulas for lactic acid milk vary as do other milk formulas for infant feeding

When the infant is very young, a lactic acid protein milk powder (for accepted brands, see description in New and Nonofficial Remedies) is generally used, suspended in water to which is added sugar or dextrin-maltose For older infants milk is used with lactic acid, based on the caloric requirements of the baby For instance, for a baby weighing 10 pounds (4 5 Kg), the following might be prescribed

Milk	600 cc (20 ounces)
Barley or oatmeal water	300 cc (10 ounces)
Dextrin maltose	40 Gm (3½ level tablespoonfuls)

Heat to boiling, cook and add 4 cc (1 teaspoonful) of lactic acid U S P This will make five feedings of 180 cc (6 ounces) each, and the infant will be obtaining approximately 20 cc of fluid per kilogram of body weight (3 ounces of fluid per pound)

3 It is an everyday occurrence in the experience of those testing many specimens of urine that the addition of a large

amount of urine to a few cubic centimeters of Haines' solution and boiling results in relatively less reduction of the copper solution than when a few drops of urine are used. In fact, the instructions given in all textbooks for using these copper solutions in testing for sugar in the urine direct that only a few drops of urine be used. The reason for the addition of the small amount of urine, rather than a large amount, is self-evident when one considers that glucose has the property of holding in solution not only the cupric hydrate of the original Haines' solution but also the cuprous hydrate formed by the reducing action of the glucose. It is true that there are many other substances in normal and abnormal urine which have this same property to a more or less degree. Among these we find ammonium compounds, albumin, uric acid, creatinine, allantoin, alkaptone acids and glycuronic acid.

When only a small amount of sugar is present in the urine examined, there may be little or no reduction observed when the urine is added to Haines' solution, even when the boiled mixture is allowed to stand for some time, because the cuprous hydrate formed is so small in amount that it is held in solution by the sugar present, just as is the case with uric acid and creatinine. When the amount of sugar is large, as in the case of the specimen in question here, the addition of a large amount of urine will result in the holding in solution of the cuprous hydrate to a large extent and the formation of a precipitate only when the solubility constant of glucose for cuprous hydrate is exceeded. This is the reason that only decolorization may be observed when large amounts of urine are added, while a prompt reduction is observed after the addition of only one drop. This was the experience of our correspondent. Thus, only a discoloration was obtained on the addition of several cubic centimeters of urine; on emptying the tube and adding more Haines' solution, a reduction promptly occurred because there was enough urine (sugar-containing material) left in the tube to produce a reduction. On now washing out the tube and adding fresh Haines' solution, a drop of urine produced a prompt reduction, because the solubility constant of cuprous hydrate in the glucose present was exceeded and precipitation must occur. This experience should teach those who have to do with the examination of urine to follow instructions and add only a few drops of urine to the copper solution when testing for sugar. While it is true that urines containing only a small amount of sugar may not show reduction under these conditions, yet if sugar is present in pathologic amounts a precipitate must settle out, provided the reducing action is greater than the solvent action of the glucose. If the amount of glucose is large and a large amount (several cubic centimeters) of urine is added to the copper solution, very disturbing reactions may occur and markedly pathologic urines may show paradoxical results.

ACCIDENTAL TRANSMISSION OF THERAPEUTIC MALARIA

To the Editor:—Will you kindly advise me whether or not, in the treatment of neurosyphilis by malaria, there is any danger of the disease (malaria) being spread by the mosquito? M.D., Jacksonville, Ill.

ANSWER.—The question as to whether or not in the treatment of neurosyphilis with malaria there is danger of malaria being transmitted to other persons by the mosquito has been the subject of discussion. The following quotations are relevant:

"Care must also be taken that the malaria does not spread from patients to others in their entourage." (Malaria Treatment of General Paralysis, Berlin Letter, THE JOURNAL, March 21, 1925, p. 911.)

"The investigations in the Vienna clinic of Professor Vivaldi (from Rome) and Dr. Kauders, clinic assistants, proved that in this artificial malaria the transmission of the infection by the anopheles mosquito is impossible, owing to the absence of gamete (sexual) forms of the parasites in the blood, or to other reasons—it is not yet exactly understood—but it is a fact. Therefore there is no necessity for strict isolation, as these patients cannot serve as a source of infection." (Amdur, M. K.: Malaria Treatment of Paresis, THE JOURNAL, May 2, 1925, p. 1375.)

"Engel was able to transmit malaria from the ninth human passage by anopheles. The blood of the patient had contained gametes." (Von Engel, R.: Transmission of Therapeutic Malaria by Anopheles, *Deutsche med. Wchnschr.* **51**:1738 [Oct. 16] 1925; abstr. THE JOURNAL, Dec. 5, 1925, p. 1845.)

"Treatment by malaria inoculation is not dangerous for the environment, provided gamete-free malaria are employed." (Berlin Letter, THE JOURNAL, May 29, 1926, p. 1711.)

"It is thus apparent that gametocytes of *Plasmodium vivax* are present in the infections produced by direct transfer of blood much earlier than in the generally accepted time of their appearance in naturally acquired malaria.

"All persons inoculated with the plasmodia of malaria should be mosquito-protected from the time of inoculation to the termination of the infection." (St. John, J. H.: The Early Appearance of Gametocytes in Artificially Induced Tertian Malaria, THE JOURNAL, May 14, 1927, p. 1561.)

SPONTANEOUS HEMORRHAGES UNDER THE SKIN

To the Editor:—Please give the nature and treatment of spontaneous hemorrhages occurring mostly about the knees and thighs in a woman, aged 35. She first notices a stinging pain which is sharply localized, and after a day or so there appears an ecchymotic area perhaps an inch in diameter which disappears like an ordinary contusion; these usually occur singly but recur at intervals of several weeks in new locations. She appears in good general health and has never shown any indications of hemophilia. Please omit name and address. M.D., Washington.

ANSWER.—The data presented are not sufficient to suggest the origin of the ecchymoses described. Embolic, purpuric or allergic phenomena should be considered. If embolic, a careful examination of the heart would probably disclose physical evidence of endocarditis, which would be the most likely cause, although it is well known that endocarditis may be present with little to be found on examination. If purpuric, a careful examination of the blood should disclose evidence suggestive of this origin; a simple anemia may be the sole finding. If allergic, the history as of urticaria or sensitization to certain proteins, and finally protein sensitization tests should disclose its nature.

Under any circumstances, ecchymoses such as described can only be manifestations of some underlying abnormal process which probably would be disclosed by a careful general examination.

LENS ANTIGEN — LARVEX — PADDOCK

To the Editor:—1. What is the present status of the treatment of senile cataract with lens antigen? 2. What is the substance in Larvex which destroys moth worm? 3. What do you know of "Dr." E. E. Paddock, Box 201, Kansas City, Mo., and his "cure" for gallstones? Please omit my name. M.D., Georgia.

ANSWER.—1. In 1924 the H. K. Mulford Company requested consideration of "Lens Extract," by the Council on Pharmacy and Chemistry, presenting as evidence for the value of the preparation the reports by A. E. Davis. The Mulford Company was informed that the evidence which it had submitted had been considered by the Council; that the referee to whom the product was assigned had consulted with a number of ophthalmologists, all of whom had agreed that the evidence for its usefulness was not acceptable, and that the Council had postponed the consideration of Lens Extract until more evidence becomes available to demonstrate its therapeutic value.

Since then Dr. Davis has published two further articles, "Serum and Lens-Antigen Extract Treatment for the Prevention and Cure of Cataract" (*Journal of the Christian Medical Association of India* **1**:10 [March] 1926) and "The Lens-Antigen Treatment of Cataract with Consideration of Some Special Features" (*American Medicine* **32**:361 [June] 1926). The Mulford Company has, however, not requested further consideration of its "Lens Extract," and the Council has taken no further action regarding it.

2. Previous to April, 1923, the declaration on the label showed that the product contained arsenic as the active ingredient. In the April 14, 1923, issue of THE JOURNAL an editorial pointed out the dangers of the continued use of such a potent substance as arsenic as a preventive for moth damage, particularly when no warning is given to the final purchaser of the fabrics concerning its presence. Subsequently the information was received that the formula of Larvex had been changed and that the preparation contains "fluorides with certain bitter principles from plants, not alkaloids." Quantitative data were not given nor was the full identity of the ingredients declared.

The Chemical Laboratory of the American Medical Association undertook a quantitative determination of the fluoride content in an original specimen of the Larvex solution in September, 1923. The amount of fluoride present was found to be equivalent to 0.28 per cent of sodium fluoride. Alkaloids were absent. Only a slight trace of arsenic was found. The identity of the plant extractive was not determined.

Whether the composition of Larvex has been changed since September, 1923, we are not in position to state. Furthermore, we have not seen published data demonstrating the relative efficacy of Larvex as a larvicide

3 According to available records, E E Paddock of Kansas City was born in 1867, obtained a diploma from the Kansas City Medical College in 1895, and was licensed in Missouri the same year Since that time he has practiced in a number of Missouri towns

Three or four years ago Paddock seems to have had some connection with a concern calling itself the Lyle Chemical Company, which put out a "Special Prescription for Women," which later seems to have been rechristened "Natura" This purported to be a cure for sterility in the female

Paddock's principal quackish activity has been as an alleged specialist in gallbladder disease His follow-up paraphernalia conforms strictly to the orthodox methods of the mail-order quack the inevitable diagnosis blank, a booklet describing the alleged qualifications of "E E Paddock, Specialist in Diseases of the Liver and Gallbladder and Gallstones," and a circular the size of a circus poster reproducing alleged testimonials, finally, of course the usual sliding scale of prices

Those who answer his "gallstone cure" advertisements, but fail to send in an order, are circularized later by the Lyle Chemical Company, detailing a home treatment for "painful menstruation" This, at least, was the case about a year ago

As an advertiser, Paddock has patronized such publications as the *Saturday Blade Police Gazette, Chicago Ledger, Household Guest* and the Chicago *Herald and Examiner*, which carry a type of advertising that speaks for itself

CALCIUM LACTATE IN VAGOTONIA

To the Editor —Regarding vagotonia, sympathicotonia, neurasthenia and other functional nervous disorders, is there any benefit to be expected from calcium lactate given in 30 grain doses in a glass of water every morning on rising? Is there any harm to be feared as a result of prolonged use? I would be grateful for any suggestions regarding the treatment of these conditions

M D, Washington

Answer —All the conditions mentioned, even neurasthenia, are merely syndromes occurring under many and exceedingly dissimilar conditions Consequently, there can be no one drug or line of treatment that will fit them all In fact, vagotonia and sympathicotonia are supposed to be rather opposite to each other A patient presenting any of the syndromes mentioned should receive individual study Calcium lactate may be of service in a few cases, especially if there is parathyroid deficiency and the blood calcium is low In the other cases it will do no harm, as the blood probably does not take up any more calcium than it needs Fortunately metabolism in the human being is regulated by some agency even more intelligent than most physicians

FELSOL

To the Editor —Please give me information regarding Felsol" a preparation made by the American Felsol Company, Lorain, Ohio

H E Battin, M D, New York

Answer —The following was published in The Journal (Feb 14, 1925, p 536) In the advertising of the American Felsol Company, Felsol is claimed to have the following composition "Metozin 0 9 (containing Phenazon 0 25, Anilipyrin 0 4, Jodopyrin 0 25), caffein 0 1, digitalis and strophanthus glycosids 0 0015 and the alkaloid of lobelia inflata 0 005"

Felsol is a typical illustration of an irrational shotgun mixture One of the claimed ingredients, metozin, is stated to contain phenazon (antipyrine), anilipyrin (a mixture of antipyrine and acetanilid) and iodopyrin (a compound of antipyrine and iodine) In addition to these multiple antipyretic ingredients, the product is claimed to contain four other active drugs, namely, caffeine, glucosides (glycosides) of digitalis and strophanthus and the alkaloid of lobelia

The circular does not state the kind of digitalis glucoside contained in the product, and "lumps" the amount of digitalis and strophanthus glucosides According to the circular, Felsol "gives the busy physician a handy, convenient and harmless remedy which may be given for any kind of bronchial or cardiac asthma, without the necessity on the part of the physician to embark on long theoretical considerations as to the underlying cause of the attacks" A product that contains preparations of digitalis, strophanthus and lobelia is not a "harmless" remedy The recommendation for the indiscriminate use of this product is to be strongly condemned

Current advertising material shows that these statements still hold good However, a recent circular shows that the firm is increasing the danger of indiscriminate use of this shotgun preparation by exploiting it directly to the public The circular states "Originally 'Felsol' was sold only to members of the medical profession and administered by prescription But the wonderful results . . . led the manufacturer to believe that the greatest good is accomplished by placing 'Felsol' direct in the hands of the public through the legitimate channels of trade" Thus "Felsol" has gone the way of Aspirin, Gude's Pepto-Mangan, Pertussin, and many other onetime "ethical" proprietaries which have been introduced to the public via the medical profession

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama. Montgomery, July 12 15. Sec, Dr S W. Welch, Montgomery

California San Francisco, June 27 30 Sec, Dr. Charles B Pinkham, 908 Forum Bldg, Sacramento

Colorado Denver, July 5 Sec, Dr David A Strickler, 1011 Republic Bldg, Denver

Connecticut Hartford, July 12 13 Sec, Dr Robert L Rowley, 79 Elm Street Hartford

Delaware Wilmington, June 21 23 State Society and Homeopathic Pres, Dr H W Briggs, 1026 Jackson St, Wilmington

District of Columbia July 12 Sec, Dr. Edgar P. Copeland, Suite 110, 1801 Eye Street, Washington

Florida Tampa, June 13 14 Sec, Dr Wm M Rowlett, Box 603, Tampa

Georgia Atlanta and Augusta, June 8 10 Sec, Dr J. W. Palmer, Ailey

Hawaii Honolulu, July 11 14 Sec, Dr James A Morgan, Young Bldg, Honolulu

Illinois Chicago, June 28 30 Supt of Regis, Mr V C Michels, Springfield.

Indiana Indianapolis, June 21 23 Sec, Dr E M Shanklin, 421 State House, Indianapolis

Iowa Iowa City June 7 9 Director of Exams and Licensure, Mr. H W Grefe, Des Moines

Kansas Topeka, June 21 Sec, Dr A S Ross, Sabetha

Kentucky Louisville, June 21 23 Sec, Dr A T. McCormack, 532 W Main Street, Louisville

Louisiana New Orleans June 9 11 Sec, Dr. Roy B Harrison, 1507 Hibernia Bank Bldg, New Orleans

Maine Bangor, July 5 6 Sec, Dr Adam P. Leighton, Jr, 192 State Street, Portland

Maryland Regular, Baltimore June 21 24 Sec, Dr Henry M Fitzhugh, 1211 Cathedral St Baltimore Homeo Baltimore, June 14 Sec, Dr J S Garrison, 517 Old Orchard Rd, Ten Hills Baltimore

Massachusetts Boston, July 12 14 Sec, Dr Frank M Vaughan, 144 State House, Boston

Michigan Ann Arbor, June 14 16 Detroit, June 20 22 Sec, Dr Guy L Connor, 707 Stroh Bldg, Detroit

Minnesota Minneapolis, June 21 23 Sec, Dr A E Comstock, 636 Lowry Building, St Paul

Mississippi Jackson, June 21 22 Sec, Dr Felix J. Underwood, Jackson

Missouri St Louis, July 13 15 Sec, Dr James Stewart, Jefferson City

Nebraska Omaha, June 7 9 Sec, Mr Lincoln Frost, State House, Lincoln

New Jersey Trenton June 14 15 Sec, Dr Charles B Kelley, 28 West State Street Trenton

New York Albany, Buffalo, New York and Syracuse, June 27 30 Chief, Professional Examinations, Mr Herbert J Hamilton, State Education Bldg, Albany

North Carolina Raleigh, June 21 Sec, Dr John W MacConnell, Davidson

North Dakota Grand Forks, July 5 8 Sec, Dr G M Williamson, Grand Forks

Ohio Columbus, June 7 11 Sec, Dr H M Platter, Hartman Hotel Bldg, Columbus

Oregon Portland, July 5 7 Sec, Dr M K Hall, 816 Pittock Block, Portland

Pennsylvania Philadelphia and Pittsburgh, July 5 9. Dir Professional Education Bureau Mr C D Koch, Harrisburg

Rhode Island Providence, July 7 Sec, Dr B U Richards, Providence

South Carolina Columbia, June 28 Sec, Dr A Earle Boozer, 505 Saluda Ave, Columbia

South Dakota Huron, July 19 Dir Medical Licensure, Dr H R. Kenaston, Bonesteel

Tennessee Memphis, Nashville and Knoxville, June 17 18 Sec, Dr A B DeLoach, 733, Medical Arts Bldg, Memphis

Texas Austin June 21 23 Sec, Dr T J Crowe, 918 Mercantile Bank Bldg, Dallas

Vermont Burlington, June 22 24 Sec, Dr W Scott Nay, Underhill

Virginia Richmond, June 15 18 Sec, Dr J W. Preston, Box 444, Richmond

Washington Seattle, July 11 Basic Science Examination, Seattle, July 7 8 Ass't Director, Mr George L Berger, Olympia

West Virginia Martinsburg, July 26 Commissioner, Dr W T Henshaw, Charleston

Wisconsin Milwaukee, June 28 30 Sec Dr Robert E Flynn, La Crosse Basic Science Board Milwaukee, June 27. Sec, Dr M. F Guyer, Madison

Wyoming. Cheyenne, June 1 2 Sec. Dr G M Anderson, Cheyenne

A COURSE IN PROFESSIONAL CONDUCT

PARK J. WHITE, M.D.
Lecturer on Professional Conduct, and Instructor in Clinical Pediatrics, Washington University School of Medicine
ST. LOUIS

Dr. Bevan's article on "The Need of Teaching Medical Ethics"[1] has recently stimulated interest in this subject. Our elective course in professional conduct at the Washington University School of Medicine was first given four years ago[2] and remains essentially unchanged. It has occurred to us that submitting a brief outline of our course might not be inappropriate at this time. Such a course, obviously, will depend for its interest and value far more on the enthusiasm of the lecturer and on the vividness of his recitals of personal experiences and specific cases than on strict adherence to a barren plan.

For the sake of closer personal touch with the students, the lecturer should be one of the younger practitioners connected with the medical school. It seems neither necessary nor advisable to make the course compulsory.

We shall probably continue to confine the course to the fourth year students, for it is especially at this stage of their education, just before the beginning of the internship, that their social conscience and their appreciation of their fellow physicians' point of view need whatever stimulation can be given.

One point deserves special comment. The public, the bill-paying laymen, view "medical ethics" with a mixture of scorn and suspicion. More than any other factor, the traditional unwillingness of physicians to interfere with other physicians' patients is responsible for this distrust of our "code." Laymen do not want to be balked in their desire to consult any physician they wish, and at any time; and they will not subject themselves to the embarrassment of "properly dismissing" a physician no longer wanted. Of course, in the midst of a certain illness, any change should be made with the full knowledge of all concerned. But, as Dr. Bevan[1] has said, consulting a physician does not give that physician exclusive and permanent right of possession. Certainly our "code" should be changed to allow the patient to seek professional aid where he thinks he can find it best.

The outline of our course is as follows:

LECTURE I

1. GENERAL CONSIDERATIONS.
   - A. Brief discussion of the A. M. A. "Principles of Medical Ethics."
   - B. Plight of the insignificant recent graduate.
   - C. Essential division of the profession into practitioners and investigators.
   - D. Present status of the general practitioner.
   - E. Definition of specialist.
   - F. Profession not really crowded. Urban and country practice.
2. ACQUIRING PRACTICE PROPERLY.
   - A. Honesty. Industry. Correct use of the English language. Medical "salesmanship."
   - B. Laymen's standards of judging a physician in advance.
   - C. "Legitimate" advertising.

LECTURE II

1. ACQUIRING PRACTICE IMPROPERLY.
   - A. "Illegitimate" advertising.
   - B. Undue optimism and "alarmism."
2. GROUP PRACTICE.
3. STARTING AS ASSISTANT TO BUSY PRACTITIONER.
   - A. Advantages and disadvantages.
4. PROPER ATTITUDE OF A DOCTOR TOWARD HIS WORK. (How to *keep* patients.)
   - A. Honesty, industry, precision, punctuality.
   - B. Necessity for keeping written records.
   - C. Readiness to call a consultation.
5. COPING WITH SUCCESS.
   - A. Difficulty of handling a large practice without overwork.
   - B. Limiting practice. Night work, etc.

LECTURE III

1. MEDICAL FINANCE.
   - A. Medical plight of the "genteel" middle classes.
   - B. Determining fair charge for services.
   - C. Coping with patients' "shopping" to learn size of fees for comparison with those of other doctors.
   - D. Difficult collections.
   - E. Patients who should be treated free.
   - F. Fee-splitting and why it is wrong.
   - G. Need of malpractice insurance.
2. RELATION BETWEEN PHYSICIANS AND OTHER PHYSICIANS.
   - A. Functions of medical societies
   - B. Manner of recommending specialists.
   - C. Consultations.

LECTURE IV

1. ATTENDING PATIENTS OF ANOTHER PHYSICIAN.
   - A. When the other physician is away or sick.
   - B. When the other physician has been dismissed.
2. PUBLIC HEALTH WORK.
3. HOSPITAL STAFF POSITIONS.
4. DOCTOR AND NURSE.
5. DOCTOR AND DRUGGIST.
6. SALARY-POSITIONS.
7. RAILROAD, INSURANCF, FACTORY WORK.

LECTURE V

1. QUACKS AND CULTS.
   - A. Why they exist.
   - B. Damage they do.
   - C. What to do about them.
   - D. "Near-quackish" practices of the medical profession itself, such as unwarranted glandular, electric, intravenous therapy employed for effect.
2. EUGENICS.
3. EUTHANASIA.
4. BIRTH CONTROL.

LECTURE VI

"PROBLEMS OF THE SURGEON"

This lecture is given by Dr. Malvern B. Clopton, assistant professor of clinical surgery.

SUGGESTED READING

- A. Trades and Professions. G. H. Palmer.
- B. Aequanimitas and Other Addresses. William Osler.
- C. Doctor and Patient. S. Weir Mitchell.
- D. The Young Practitioner. O. W. Holmes.
- E. Oath of Hippocrates.
- F. Life of Trudeau.
- G. Life of Pasteur. R. Vallery-Radot.
- H. Microbe Hunters. Paul DeKruif.

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[1] Bevan, A. D.: The Need of Teaching Medical Ethics, J. A. M. A. 88:617 (Feb. 26) 1927.

[2] Dean Marriott discussed the course briefly two years ago in his address on Broadening the Medical Curriculum, South. M. J. 18:147 (Feb.) 1925.

Vermont February Examination

Dr. W. Scott Nay, secretary of the Vermont Board of Medical Registration, reports the written examination held at Burlington, Feb. 8-10, 1927. The examination covered 12 subjects and included 90 questions. An average of 75 per cent was required to pass. Three candidates were examined, all of whom passed. Two candidates were licensed by reciprocity and one by endorsement of his credentials. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent
Tufts College Medical School		(1926)	86.7
University of Minnesota Medical School		(1926)*	86.4
McGill University Faculty of Medicine		(1925)	90.6

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Missouri Medical College, St Louis		(1900)	Maine
Medico Chirurgical College of Philadelphia		(1900)	R. Island

College	ENDORSEMENT OF CREDENTIALS	Year Grad.	Endorsement with
Cornell University Medical College		(1922)	N. B M. Ex.

* This candidate has finished his medical course and received his M B. degree, and will receive his M.D. degree on completion of a year's internship in a hospital.

Book Notices

DISEASES OF THE HEART: Their Diagnosis, Prognosis, and Treatment by Modern Methods. By Frederick W. Price, M.D., F.R.S., Physician to the National Hospital for Diseases of the Heart. Second edition. Cloth. Price, $6.20. Pp. 534, with 249 illustrations. New York: Oxford University Press, 1927.

In this monograph, the author, a former associate of the late Sir James Mackenzie, first takes up the anatomy, embryology and physiology of the heart. Next he discusses the physical signs, methods of physical examination and the mechanical aids, including the sphygmomanometer, sphygmograph, polygraph, roentgen ray and electrocardiograph, and the apparatus for the graphic record of heart sounds. Then follows an excellent presentation of heart failure, prognosis and treatment in which all the most recent methods are incorporated. The remainder of the book is taken up by a series of chapters on the functional and organic lesions of the heart and on disordered action of the heart. At the end are excellent chapters on roentgen-ray examination, electrocardiography and anesthetics in heart disease. This is distinctly a book written for the general practitioner rather than for the cardiologist. It is not weighted down with ultrascientific discussions of the theoretical and academic phases of the subject but is most practical, and it brings out the importance of functional capacity in both prognosis and treatment. The diagnostic aids that are mentioned particularly are the sphygmomanometer and the sphygmograph or polygraph, all of which are either in the possession of the general practitioner or can be obtained at a relatively low cost and are simple to operate. An electrocardiograph is not considered a sine qua non for adequate cardiac diagnosis or for prognosis or treatment. The consideration of heart failure, its prognosis and treatment before the anatomic lesions, whatever their etiology or the irregularities, appeals particularly as it emphasizes that the functional capacity of the heart, that is, change in function, is more important than change in form. The methods of treatment advocated both in the chapter on treatment and in the discussion of the various pathologic lesions are those accepted by the best modern writers. A learned and sound presentation of a subject that is of great interest to all physicians.

HANDBUCH DER NORMALEN UND PATHOLOGISCHEN PHYSIOLOGIE: Mit Berücksichtigung der experimentellen Pharmakologie. Herausgegeben von A. Bethe, G. v. Bergmann, G. Embden, und A. Ellinger. Band VIII. 1. Halfte. Energieumsatz. Teil 1. Mechanische Energie. (D/I. Protoplasmabewegung und Muskelphysiologie). Paper. Price, 45 marks. Pp. 654, with 136 illustrations. Berlin: Julius Springer, 1925.

Twenty-three writers contribute to this volume of the comprehensive series constituting the Handbook of Normal and Pathologic Physiology appearing (in seventeen volumes) under the combined editorship of Bethe, Embden, Bergmann and Ellinger. In a review of the first volume that appeared in THE JOURNAL, March 13, 1926, p. 803, the general scope of the enterprise was outlined. The present volume deals exhaustively with the various types of movements and contractility observed in plants and animals. The first 107 pages deal essentially with protoplasmic movements, ciliary motion, growth movements in plants, and contractile organs of plants. The remainder of the book describes all possible phases of muscle physiology (histology, physical chemistry, mechanical properties, tonus, contracture and rigor, influence of inorganic ions on muscular activity, chemistry of muscular contraction, respiration of muscle, thermodynamics of muscle, and theory of muscular contraction). One chapter is devoted to the pharmacology of muscular contraction. The last three chapters deal with muscular degeneration, atrophy and hypertrophy, electrodiagnosis and electrotherapy of muscle, and the general physiology underlying the action of muscles in the body. This outline of contents serves to indicate to the interested reader the exhaustive nature of the volume as a whole without a recital of the headings of all the chapters. Among the chief contributors appear the familiar names of Meyerhof and Embden. A. V. Hill's name is absent, though he and Meyerhof have established an international reputation because of their fundamental contributions to this field of physiology. Enough has been said to indicate that the volume contributes the last word on this aspect of physiology for the interested reader and researcher as a compilation of information and bibliographic references to the original literature.

TEXTBOOK OF BIOLOGICAL CHEMISTRY. By James B. Sumner, Ph.D., Assistant Professor of Biological Chemistry, Cornell University. Cloth. Price, $3.50. Pp. 283. New York: Macmillan Company, 1927.

This is intended for the elementary student and not as a reference work. An introduction dealing with the general character of the field covered, the methods employed, the problems encountered and the type of original publications available is followed by eleven chapters dealing with (1) the chemistry of the lipins, their digestion and metabolism; (2) the carbohydrates, similarly treated; (3) acidosis and alkalosis, treated briefly; (4) the chemistry of the proteins, their digestion, absorption and metabolism; (5) the vitamins; (6) energy requirements; (7) the composition of the urine, with the origin and significance of the constituents; (8) blood and its function in respiration, treated in a simple manner from the modern point of view; (9) physiologic detoxications, briefly considered; (10) enzymes, treated separately in a chapter with more particular reference to the author's beautiful work on urease; (11) the physical chemistry of protoplasm, treated simply, with many applications of the fundamental concepts to biology. References are not given to original papers, and few attempts are made to discuss problems critically. The work is one that is to be recommended to the college grade of students as a beginning text. It is of some significance, and of considerable satisfaction, that the author has not adopted the recently suggested changes in biochemical terminology.

THE TREATMENT OF CHRONIC ARTHRITIS AND RHEUMATISM. By H. Warren Crowe, D.M., B.Ch., M.R.C.S. Cloth. Price, $2.75. Pp. 196, with 16 illustrations. New York: Oxford University Press, 1926.

This is a dissertation on a method of treatment of "rheumatoid arthritis," "osteo-arthritis," and "mixed arthritis" by one who is convinced that nearly all patients with these diseases can be cured by treatment with an autogenous or stock vaccine composed of streptococci and the micrococcus deformans described by the author in 1912, provided his methods of administration are followed exactly. In some cases he finds it necessary first to desensitize the patient with peptone or by mixing the vaccine with benzamine lactate. Removal of foci of infection is advocated. The theoretical basis for his treatment, together with experimental evidence, is to be given in a companion volume to be published shortly. The case records cited in this volume are not especially convincing.

DIE PSYCHOPATHISCHEN VERBRECHER: Die Grenzzustände zwischen geistiger Gesundheit und Krankheit in ihren Beziehungen zu Verbrechen und Strafwesen. Für Ärzte und Juristen. Von Dr. Karl Birnbaum, Oberarzt an der Berliner Städtischen Irrenanstalt Herzberge. Second edition. Paper. Price, 17.50 marks. Pp. 287. Leipsic: Georg Thieme, 1926.

It is encouraging to note that a book dealing with this topic should have had demand enough to make a second edition necessary. The entire question of classification of the psychopathic criminal has undergone considerable reconsideration during the last ten years. In spite of the importance of the psychanalytic point of view, the student of the psychopathic criminal cannot fail to observe recurrent manifestations that refuse to be fitted into the purely situational or acquired mechanisms. Birnbaum presents a varied treatment of the entire field, being less concerned with the elaborate development of theory (although theoretical foundations are by no means ignored) than with the discussion of various manifestations on the basis of actual case material. The first three lectures develop the theory and define the diagnostic criteria; the general classification and the general definition of the types. The following chapters are devoted to the various types of psychopathic criminal. Lectures 21 to 24 deal with the reaction of psychopathic patients to various legal procedures such as imprisonment, including a discussion of the results obtained by imprisonment and other judicial treatment. Chapter 24 is devoted to the simulation in psychopaths, and the remaining chapters deal with the forensic implications of the subject. The work is written entirely from the psychiatric point of view and is in the main an extension of the ideas of the older psychiatry, of which the chapter in Kraepelin's "Psychiatry," eighth edition, on psychopathic personalities, is the model.

The definition of the psychopathic personality and borderline psychopath was always a troublesome one. The definition given by the author may be freely translated about as follows: Into the group of the constitutional psychopathic he places "those pathologic manifestations which are characterized by mild psychic deviations from the normal, based on an abnormal constitution." In addition to this definition he discusses the definition of degeneration, which, he points out, is still a very vague and untested concept. He recognizes that degeneration is an empiric biologic or, rather biopathologic manifestation and is to be recognized by the fact that it is "a form of organization which varies from the normal by the characteristic of being an hereditary deviation from the normal in the direction of the unfavorable so far as the organism is concerned." The author points out, furthermore, that because of the indefiniteness of this concept there is considerable lack of unanimity in the interpretation of these terms among anthropologists, sociologists and historians, and among the more purely natural scientists from the biologist to the psychiatrist.

A book written from this point of view may leave much to be desired with regard to a great many of the subjects treated. The modern conception of the adaptive mechanism and its disorders together with the emphasis placed in this country on the social and educational factors would, perhaps, question some of the inferences drawn by the author in his discussion of his cases as well as in his general treatment. But even granting this, the attempt made by the author to assemble all the information and to assemble the knowledge in regard to constitutional and hereditary factors, without omitting the discussion of psychogenetic characteristics, is a valuable addition to the literature. With the opinion in this country swinging rather extremely toward the psychogenetic and situational explanations, it is perhaps useful for the purposes of orientation to find that there is so much to be said on the constitutional and pathologic side. The forensic treatment of problems is on a par with the general excellence of the book, and much of it is applicable to this country. Some of it, of course, will be found to be more useful in connection with German procedure than with ours.

Clinical Preventive Dentistry. Based on a New Type of X-Ray Examination. By Howard Riley Raper, D.D.S., F.A.C.D. Cloth. Price, $3.50. Pp. 124, with 44 illustrations. Rochester, N. Y.: Ritter Dental Manufacturing Company, Inc., 1926.

The author of this book does not believe in "100 per cent extraction of pulpless teeth" but in striving for 100 per cent prevention of pulpless teeth. He shows that one of the obstacles in the way of attaining this object is the difficulty of detecting interproximal cavities. Constructively, he explains a simple roentgenologic method for demonstrating these cavities at reasonable cost. The book has a good purpose and contains detailed information. Its style is discursive and its structure fragmentary.

Laryngeal Tuberculosis. By Frank Robert Spencer, A.B., M.D., F.A.C.S., Assistant Professor of Otolaryngology, Department of Medicine and Surgery, University of Colorado. With a Chapter on Gross Postmortem and Microscopic Pathology. By Philip Hillkowitz, B.S., M.D., Director of Clinical Laboratories of Mercy Hospital. Cloth. Price, $5. Pp. 69, with 57 illustrations. Philadelphia: J. B. Lippincott Company, 1927.

This book deals with the laryngeal involvement that is a common complication of pulmonary tuberculosis. After noting the historical aspect of the condition as it occurs in literature, the author discusses the fact that tuberculosis of the larynx is practically always secondary to tuberculosis of the lungs. True, some one occasionally describes cases of supposed primary tuberculosis of the larynx, but they are so rare as to be practically nonexistent. The prophylaxis is then considered and the author states that "it is almost if not quite impossible to prevent laryngeal tuberculosis in the majority of patients suffering with advanced pulmonary tuberculosis." The various changes, such as asthenia, hyperemia, infiltration, tuberculoma, ulceration, edema and perichondritis, are considered, and many beautiful and highly instructive illustrations accompany the text and practically show the tissues as they were found. The whole work is nicely done, and the pictures are of great value to the reader and to the student. Spencer discusses the prognosis of the disease and outlines the various measures of actual treatment. Among these are vocal rest, lactic acid on the ulcerations, the general administration of tuberculin, use of heliotherapy, and cauterization. This brochure is most complete in every way and its study is recommended to all who are interested in internal medicine and in laryngology. It is the work of one who has had extensive experience in tuberculosis and who has excellent medical judgment.

Anatomie topographique du système nerveux central. Par Georges Guillain, professeur de clinique des maladies du système nerveux à la Faculté de médecine de Paris, et Ivan Bertrand, chef du laboratoire d'anatomie pathologique de la clinique des maladies du système nerveux à la Faculté de médecine de Paris. Cloth. Price, 95 francs. Pp. 322, with 60 illustrations. Paris: Masson & Cie, 1926.

This is a very complete volume which consists of sixty original plates illustrating the microscopic and gross topography of the central nervous system. Clear and concise anatomic descriptions furnish the text. The work is of course illustrative of the combination of clinical and anatomicopathologic methods of investigation that have been employed by French neurologists.

Books Received

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits. Books listed in this department are not available for lending. Any information concerning them will be supplied on request.

Ultra-Violet Radiation and Actinotherapy. By Eleanor H. Russell, M.D., B.S., and W. Kerr Russell, M.D., B.S., Hon. Actinotherapist Sun-Ray Clinic, Newcastle-on-Tyne. With forewords by Sir Oliver Lodge, F.R.S., D.Sc., LL.D., and Sydney Walton, C.B.E., M.A., B. Litt. Second edition. Cloth. Price, $5. Pp. 429, with 168 illustrations. New York: William Wood & Company, 1927.

New edition of well prepared British handbook on uses of ultraviolet rays.

Indikationen für die operative Behandlung der Frauenkrankheiten. Von Dr. Walther Benthin, a. ö. Professor an der Albertus-Universität und leitender Arzt der Abteilung für Geburtshilfe und Frauenkrankheiten des städtischen Krankenhauses zu Königsberg i. Pr. Paper. Price, 10.20 marks. Pp. 226. Berlin: Urban & Schwarzenberg, 1927.

A guide to surgical indications in gynecology with sixty-one case reports.

Gynecological Diagnosis and Pathology. By A. H. F. Barbour, M.D., LL.D., F.R.C.P., and B. P. Watson, M.D., F.R.C.S., F.A.C.S., Professor of Obstetrics and Gynecology in Columbia University. Third edition. Cloth. Price, $4. Pp. 223, with 209 illustrations. New York: William Wood & Company, 1927.

New edition of guide to gynecology in small type but with good illustrations.

Die Abtreibung. Eine medizinisch-soziologische Studie in bildlichen Darstellungen für Ärzte, Juristen und Soziologen. Von Universitäts-Professor Dr. W. Liepmann, Direktor des Deutschen Instituts für Frauenkunde. Paper. Price, 12 marks. Pp. 24, with 24 plates. Berlin: Urban & Schwarzenberg, 1927.

Beautifully illustrated monograph showing high mortality from abortion.

Anatomie éleméntaire des centres nerveux et du sympathique chez l'homme. Vie de relation et vie végétative. Par P. Gilis, professeur d'anatomie à la Faculté de médecine de Montpellier. Paper. Price, 20 francs. Pp. 232, with 36 illustrations. Paris: Masson & Cie, 1927.

On the relations of the various parts of the various nervous systems.

Die Arzneimittel Synthese auf Grundlage der Beziehungen zwischen chemischen Aufbau und Wirkung fur Arzte, Chemiker und Pharmazeuten Von Dr. Sigmund Frankel, a o. Professor fur medizinische Chemie an der Wiener Universitat. Sixth edition. Paper. Price, 87 marks Pp. 935. Berlin Julius Springer, 1927.

Latest edition of established German work on chemistry of drugs.

Alkohol Extrakt Reaktion. A E R zum Nachweis von Schwangerschaft, Karzinom, Geschlecht des Kindes, usw Von Dr. med W. Luttge, und Dr. phil. W. v Mertz, Assistenten an der Univ Frauenklinik Leipzig. Paper. Price, 13 marks. *Pp. 259, with 22 illustrations. Leipsic:* S. Hirzel, 1927.

Monograph on a new diagnostic reaction that is frequently right.

The Elements of General Zoology. A Guide to the Study of Animal Biology Correlating Function and Structure with Notes on Practical Exercises. By William J Dakin, D Sc, F Z S, Professor of Zoology in the University of Liverpool. Cloth Price, 12s 6d net. Pp. 496, with 252 illustrations. New York: Oxford University Press, 1927.

New English textbook of biology.

Surgical Nursing and the Principles of Surgery for Nurses. By Russell Howard, C B E, M S, F R C S, Surgeon, London Hospital. Fifth edition. Cloth. Price, $3 Pp. 320, with illustrations New York Longmans, Green & Company, 1926.

New edition of well established British textbook with more emphasis on technic than on principles.

The Teeth and Health By J Sim Wallace, D Sc, M D, L D S, Lecturer on Preventive Dentistry, King's College Hospital Cloth Price, 3/6 net. Pp 214, with 5 illustrations. London. Faber & Gwyer, Ltd, 1926

Elements of preventive dentistry but somewhat too technically presented for a lay audience.

Die Croon Vorlesungen uber Aufbau und Abbau des Nervensystems (Croonian Lectures on the Evolution and Dissolution of the Nervous System) Von J. Hughlings Jackson. Uebersetzt von Otto Sittig Paper Price, 6 60 marks. Pp 137 Berlin· S Karger, 1927.

Jackson's famous lecture with English on one page and German translation on page opposite.

Hernia and Hernioplasty By Ernest M Cowell, D S O, M D, B S, Surgeon, Croydon General Hospital With an introduction by Sir Arthur Keith, F R C S, F R S Cloth Price, 9/ net. Pp 128, with 72 illustrations London. H. K Lewis & Company, Ltd, 1927.

Attempt at monographic presentation of best features of some hundred technics for hernia.

The Reaction of Culture Media By S R Douglas, J W. H. Eyre, P. P Laidlaw, and C G L Wolf Medical Research Council. Special Report Series No 35 (revised) Paper Price, 6d net. Pp 21. London His Majesty's Stationery Office, 1927

Studies on importance of reaction in relation to bacterial growth and identification.

The Clinical Interpretation of Blood Chemistry By Robert A. Kilduffe, A B, A M, M D, Director Laboratories, Atlantic City Hospital. Cloth. Price, $2 50 Pp 186, with 20 illustrations. Philadelphia. Lea & Febiger, 1927.

Advice for practitioners on readings and interpretations in blood chemistry.

Wie kann die Menschheit von der Geissel der Syphilis befreit werden. Von Erich Hoffmann, o o. Professor und Direktor der Hautklinik an der Universitat Bonn. Paper. Pp. 54, with 8 illustrations. Berlin: Julius Springer, 1927.

Consideration of the possibilities of healing and eradicating syphilis.

Thought and the Brain. By Henri Pieron, Professor at the College of France Translated by C K Ogden, Editor of "Psyche." Cloth. Price, $4. Pp 262, with 20 illustrations New York. Harcourt, Brace & Company, Inc., 1927.

Complex presentation of modern intricate theories of action of the mind.

Basic Material for a Pharmaceutical Curriculum By W. W. Charters, University of Pittsburgh, A. B Lemon, University of Buffalo, and Leon M. Monell, University of Buffalo Cloth Price, $4. Pp 366. New York: McGraw Hill Book Company, Inc, 1927.

Guide to the study of pharmacy prepared by an unprejudiced committee.

Die nach inner gerichtete Schutz- und Heilwirkung der Haut (Esophylaxie) mit besonderer Berucksichtigung der Tuberkulose. Von Dr. med. Erich Hoffmann, o. ö. Professor und Direktor der Hautklinik an der Universitat Bonn. Paper. Price, 1.35 marks. Pp. 32. Berlin: S. Karger, 1927.

Function of the skin in healing processes.

Ulcusproblem und Säurebasengleichgewicht. Eine klinisch-experimentelle Studie. Von Prof. Dr. Rudolf Bálint, o. ö. Universitats Professor, Direktor der I. med. Klinik der Pazmány Peter-Universitat in Budapest Paper. Price, 10 40 marks. Pp. 204, with 18 illustrations. Berlin. S Karger, 1927

Monographic German consideration of gastric ulcer.

Physicians of the Mayo Clinic and Mayo Foundation. Cloth. Price, $7. Pp. 578, with portraits. Philadelphia: W. B. Saunders Company, 1927.

Biographies, bibliographies and photographs of some hundreds of physicians associated for more than a year with the Mayo Clinic.

Medical Science for Everyday Use. By Shields Warren, A B, M D, Instructor in Pathology in the Harvard Medical School. Cloth. Price, $2 Pp. 178. Philadelphia: Lea & Febiger, 1927.

Collection of articles previously published in the Boston *Herald*

A Text Book of Clinical Neurology. By Israel S. Wechsler, M D, Assistant Professor of Clinical Neurology, Columbia University Cloth. Price, $7. Pp 725, with 127 illustrations. Philadelphia: W. B. Saunders Company, 1927.

Neurology with emphasis on signs, symptoms and pathology.

Surgical Applied Anatomy. By Sir Frederick Treves. Eighth edition, revised by C. C. Choyce, C M G, C.B E, B Sc, Professor of Surgery, University of London. Cloth. Price, $4. Pp. 727, with 162 illustrations. Philadelphia: Lea & Febiger, 1927.

Latest edition of classic guide for students.

Basal Metabolism in Health and Disease By Eugene F. Du Bois, M D, Medical Director, Russell Sage Institute of Pathology. Second edition Cloth. Price, $5. Pp. 431, with 92 illustrations Philadelphia: Lea & Febiger, 1927.

New edition of a standard guide.

Health Record for Children. By J. Theron Hunter, M D Cloth. Price, $1. Pp. 52 Baltimore: Williams & Wilkins Company, 1927.

Blank forms for recording the health record of the child.

Die Chirurgie Eine zusammenfassende Darstellung der allgemeinen und der speziellen Chirurgie. Herausgegeben von Prof. Dr. M Kirschner, und Prof Dr. O. Nordmann Lieferung 11 Band VI Die Chirurgie der Harnblase Die Chirurgie der Prostata und der Samenblasen Von *Prof Dr. E. Wehner Paper. Price, 18 marks. Pp 751-1038, with* 113 illustrations. Berlin· Urban & Schwarzenberg, 1927.

Handbuch der inneren Sekretion. Eine umfassende Darstellung der Anatomie, Physiologie und Pathologie der endokrinen Drüsen. Herausgegeben von Dr. Max Hirsch. Band I, Lieferung 2, & Band II, Lieferung 2 Paper Price, 13 50 and 12 marks. Pp 197 336, and 277 422, with illustrations. Leipsic. Curt Kabitzsch, 1927.

General Hints on Everyday Health. By Morris Fishbein, M D, Editor of the Journal American Medical Association and Hygeia. Little Blue Book No 167 Paper. Price, 5 cents. Pp. 64. Girard, Kansas. Haldeman Julius Company, 1927.

Nineteenth Biennial Report of the State Department of Health of North Dakota for the Biennial Period Ending June 30, 1926. Paper. Pp. 93. Bismarck, N. D, 1926.

Ueber kongenitale Wortblindheit (angeborene Leseschwäche). Von Dr. Fritz Bachmann. Paper. Price, 4 20 marks. Pp. 72, with 4 illustrations Berlin: S. Karger, 1927.

The Facts About Rejuvenation. By Morris Fishbein, M D. Little Blue Book No. 648 Paper. Price, 5 cents. Pp. 32. Girard, Kansas: Haldeman Julius Company, 1926.

Transactions of the American Gynecological Society. Volume 51, for the year 1926. Cloth. Pp. 314, with illustrations. St. Louis: C. V. Mosby Company, 1926.

Annual Report of the Sanitary Engineer of the Republic of Haiti for the Fiscal Year 1925-1926. Paper. Pp. 189, with illustrations Port au Prince, 1926

Biennial Report of the State Board of Health of the State of Nevada for the Period Ending December 31, 1926. Paper. Pp. 15. Carson City, 1926.

Forty Second Annual Report of the Trudeau Sanatorium. Paper. Pp. 51, with illustrations. Saranac Lake, 1926.

Miscellany

RÔLE OF ACHLORHYDRIA AND INTESTINAL INFECTION IN PERNICIOUS ANEMIA

Thirty-seven cases of pernicious anemia have been examined by F. A. Knott (*Guy's Hosp. Rep.* **77:** 1 [Jan.] 1927. Each of the patients gave definitely positive signs: The blood picture showed anemia with high color index, megalocytosis, anisocytosis, often nucleated red cells and leukopenia. The serum gave a negative direct and positive indirect van den Bergh reaction. All had complete achlorhydria. Many showed signs of subacute combined degeneration of the spinal cord, the symptoms of which were, in several instances, more prominent than those of the associated anemia. The bacteriology of the duodenal specimens together with that of the feces has been worked out in great detail. In normal fasting people the upper part of the small intestine is sterile or contains very small numbers of nonpathogenic micrococci and sarcinae. Not until the middle part of the small intestine is reached do milk-souring gram-positive bacilli (e. g., *B. acidophilus* type) become numerous, and the gram-negative coliform organisms are not fully established above the lower parts of the jejunum. The gram-positive obligate anaerobes (*B. enteritidis-sporogenes, B. welchii*) also are numerous only in the lower jejunum. In cases of complete achlorhydria the bacterial contents of the duodenum and ileum have a tendency to be fecal in type.

The theory that this ascending infection is the direct result of the achlorhydria is supported by several experimental observations. In the thirty-seven cases on which this note is based, coliform bacilli were found in 94 per cent, streptococci in 97 per cent, and staphylococci in only 44 per cent. Hemolytic coliform bacilli are not at all uncommon, hemolytic micrococci occur frequently, and the hemolytic anaerobes, as far as the duodenum is concerned, are evidently rare. The gram-positive anaerobes are relatively increased. The most striking increase shown in the table is that of *B. coli-hemolyticus.* From these various results one may fairly assume the relatively frequent occurrence of hemolytic bacteria of various kinds in the intestine in cases of Addison's anemia.

From experimental work already published, it seems that (1) hemolysins may be absorbed from the intestine, and (2) that they may produce in vivo an anemia of addisonian type. In animals an anemia definitely of addisonian type has been produced by injections of a great variety of hemolytic substances. Any active hemolysins gaining access to the circulating blood tend sooner or later to produce a blood picture approximating more or less closely to that of the disease under consideration. Particularly is it noteworthy that similar blood pictures are produced by the hemolysins of the micrococci, the coliform bacilli and the anaerobes. In his experimental work Knott failed to find much evidence that production of the special addisonian type of anemia is peculiar to any one bacterial group.

It seems quite possible that the hemolysin responsible for Addison's anemia is not specific, except that it may be one which also possesses neurotoxic properties. But as to this last point, the possibility is to be considered that the neurotoxin may not necessarily be derived from the same bacterial strain, but may arise from another organism, say one of the gram-positive anaerobic group, which bacteria are evidently also present in large numbers in the gross fecal infection of the small intestine in these cases. The data given suggest that in Addition's anemia and subacute combined degeneration of the cord there is a double invasion of the small intestine: from above by catarrhal and pyogenic organisms, and from below by fecal and putrefactive bacteria. In one or both groups hemolytic bacteria may occur, and it is noteworthy that if both routes are considered, the incidence of hemolytic strains is about 90 per cent. In the few cases in which anemia of the addisonian type follows chronic ileac obstruction the ascending infection alone would occur, the gastric germicidal barrier being intact. But whether the initial cause is achlorhydria or obstruction, the ultimate result is gross fecal infection of the jejunum and ileum. If absorption of hemolysin can occur from the small intestine, the point at which supporters of the absorption theory will disagree concerns the exact nature of the organism responsible for the hemolysin and neurotoxin production.

Is it necessary, however, to postulate a single specific bacterial strain? There is, of course, the possibility that the achlorhydria, by permitting large numbers of living organisms derived from septic material to pass through the stomach into the duodenum may promote a catarrhal state of the mucosa of the small intestine, which facilitates not only its infection with all kinds of fecal bacteria but also absorption of whatever toxins these organisms may produce. Knott puts forward the suggestion that the reason for complete failure on the part of so many workers to isolate a special bacterium in Addison's anemia arises from the fact that there is no specific organism, the toxins being products of the grossly fecal flora, which comes to occupy the small intestine and in which one may find varying mixtures of hemolytic and neurotoxic strains. Whether the organisms are specific or not, there is at least no doubt that striking improvement may follow the oral administration of dilute hydrochloric acid, three or four times daily. Knott suggests that acid given in this way must act not only as a prophylactic preventing reinfection of the intestines from above, but must also tend to reinstate the waves of acidity, which normally pass through the small intestine, driving back the fecal flora of the cecum and lower ileum. By whichever route, ascending or descending, toxic bacteria were invading the upper small intestine, continued administration of hydrochloric acid would tend to reduce the numbers actually establishing themselves at that level. In this way might be explained the evident therapeutic value of continued oral administration of dilute hydrochloric acid in cases of Addison's anemia and subacute combined degeneration of the cord.

Medicolegal

Judicial Observation Versus Niceties of Alienists

(Commonwealth v. Devereaux (Mass.), 153 N. E. R. 881)

The Supreme Judicial Court of Massachusetts, in affirming a denial of a motion for a new trial after the conviction of the defendant of murder, says that it was stated in the motion that evidence had been newly discovered to the effect in substance that the defendant was insane and "absolutely irresponsible and not appreciative of the significance between right and wrong." No evidence as to the mental condition of this defendant was offered at the trial before the jury. The judge who denied the motion presided over the jury trial, saw the defendant, heard him testify in his own behalf, and, of course, watched his apparent mental capacity as revealed both under direct and cross examination and by his other conduct in the courtroom during the trial. The judge may well have been able to form a judgment as to the legal responsibility of the defendant for crime, based on common sense inferences and intelligent observation, more reliable as a practical guide to the accomplishment of justice than the refined distinctions and technical niceties of alienists and experts in psychopathic inferiority. He may have found that the affidavits supporting the motion were not reliable. Such a conclusion would have been within the judicial discretion of the trial court. Again, a Massachusetts statute in force at the time provided that any person indicted for a capital offense should be examined by the department of mental diseases of the commonwealth with a view to determining his mental condition and the existence of any mental disease or defect that would affect his criminal responsibility, and file a report of its investigation with the clerk of the court in which the trial was to be held. It was a necessary deduction from all the circumstances that the defendant was put on trial on the indictment because the report of the department of mental diseases upheld his criminal responsibility. The judge had a right to examine the cause suggested in the motion for a new trial in the light of the contents of that report in order to aid him in ascertaining whether justice required that there be a new trial. Constitutional or other inferiority is not the test of criminal responsibility. Nor was the fact that the question of insanity was not raised at the trial any reason in and of itself for granting a new trial merely because affidavits were presented having a tendency to show insanity. Otherwise the strategy of almost every defense would be to omit any reference to insanity on the first trial and reserve that for a second trial. When such a motion is presented, it becomes the duty of the trial judge to determine whether there is sound ground for such a defense and whether it would or ought to produce a different result in the minds of another intelligent jury; and this is a matter for the trial court to judge for itself in the exercise of a sound discretion.

Opinion Evidence of Probable Duration of Injuries

(Barron v. Duke et al. (Ore.), 250 Pac. R. 628)

The Supreme Court of Oregon, in affirming a judgment for $8,964 damages for personal injuries sustained by Mrs. Barron in a collision of automobiles, says that she was thrown through the glass door of the car in which she was riding and struck the sidewalk on her head. The testimony of the physician who attended her indicated that her brain trouble could not be localized; that the usual "likely" and "probable" result of her injury would be epilepsy, or some other serious or permanent injury. A plaintiff is entitled to prove any injury to his or her person and all damages that usually or ordinarily result from the wrongful act alleged or from the nature and kind of injuries described. It is the fact of injury that is elemental, not the nature or character of the particular wounds and hurts which necessarily and naturally result from the negligent act. Future consequences which are reasonably to be expected to follow an injury may be given in evidence for the purpose of enhancing the damages. Such apprehended consequences must be such as, in the ordinary course of nature, are reasonably certain to ensue, in order that they may be considered by the jury. Opinion evidence is properly receivable as to the probable effects or duration of an existing condition of an injury, while evidence of future consequences from a personal injury which are not present at the time, but are contingent, speculative and merely possible, is not admissible. The opinions of physicians may be admitted to show the probable future consequences of an injury, when the consequences anticipated are such as, in the ordinary course of events, may be expected to happen, and not merely speculative or possible. The injury to Mrs. Barron's head being subjective, it was proper for the attending physician to explain to the jury the probable results by comparing the general results to other persons who had suffered similar injuries. His evidence should not be withdrawn from the jury because he said he did not know what the future results would be.

Concealing Negligence Malpractice—Not Equity Case

(Tulloch v. Haselo (N. Y.), 218 N. Y. Supp. 139)

The Supreme Court of New York, appellate division, third department, in affirming an order and judgment for the defendant, dismissing the plaintiff's complaint on the defendant's motion for judgment on the pleadings, says that the complaint alleged that in January, 1921, through the defendant's carelessness and negligence while he was extracting teeth for the plaintiff when she was under ether, one of the teeth went down her throat and lodged in her lung; that he concealed from her the fact that a tooth had gone down her throat; and that she did not know of the existence of the tooth in her body until it was removed from her lung in January, 1924. The defendant set up as separate defense the two-year statute of limitations applicable to an action to recover damages for malpractice.

There was nothing alleged from which it might be inferred that the defendant knew or ought to have known that the tooth had lodged in the lung. In the absence of symptoms, brought to his attention, indicating a possible lodgment in the lung, he might have assumed that the tooth had entered the stomach and had safely passed out of the body through the intestine. The allegation of fraudulent concealment in the complaint referred simply to the concealment of the fact that the defendant "let a tooth fall down her throat, and that a tooth had gone down her throat." There was nothing alleged from which the court might infer any intentional fraudulent misrepresentation of fact as to the presence of a tooth in the lung, resulting from letting it fall down her throat. At most there was a breach of professional duty in the operation alleged to have been negligently performed, and in the concealment of the negligent act. That was malpractice, and the statute of limitations had run against such a cause of action.

The plaintiff contended, however, that the cause of action alleged was a cause of action for fraud, and that the statute of limitations for such an action does not begin to run until the discovery of the fraud, which discovery in this case was made in January, 1924. But the direct cause of the plaintiff's damage was the carelessness and negligence in permitting the tooth to fall down the plaintiff's throat. The subsequent concealment of such negligent act may have aggravated the original wrong, but simply as a circumstance in the chain of events leading from the original carelessness, presumably adding to the damages which resulted therefrom. The concealment alleged was not the wrong which must be made the gravamen of an action to procure a judgment on the ground of fraud. It was malpractice that was the proximate cause of the injury which the plaintiff sustained. The failure to speak and to disclose the negligent act was a breach of duty which constituted malpractice.

The plaintiff sought further, however, to invoke the doctrine of equitable estoppel to prevent the defendant from raising the statute of limitations, contending that an action may be brought in equity where one has obtained such an advantage by fraud as equity will not allow him to hold. But no case was cited in which equity has taken jurisdiction in an action for personal injuries, and there were no facts alleged which should invite the court to stretch its chancery powers to a case which was clearly malpractice and not fraud. It would be a dangerous precedent to establish to hold that equity should interpose against the statute of limitations in a malpractice case, especially where no intentional injury is shown or to be inferred, amounting to fraud and deceit; and for such a case the outlawry statute has made provision.

Requiring New Certificate to Excuse from Vaccination

(Barber v. School Board of Rochester et al. (N. H.), 135 Atl. R. 159)

The Supreme Court of New Hampshire says that this was a bill in equity brought by the plaintiff in behalf of his minor children and in his own right. The allegations were that in 1924 the children, being of school age, were excused from being vaccinated, on furnishing a proper certificate. In 1925 the school board demanded a new certificate, which the plaintiff refused to furnish. The defendants' answer alleged that the children were fit subjects for vaccination and declared the purpose to exclude them from the public schools of Rochester until they were vaccinated or furnished a new certificate. A demurrer to the answer was overruled, and the plaintiff excepted, whereupon the case was transferred to this court, which overrules the plaintiff's exceptions.

The present rights and duties of the parties must be determined by section 1, chapter 123, of the public laws of the state, which provides that no child shall attend a public or private school in the state unless he has been vaccinated, or holds a certificate of the local board of health that he is unfit for vaccination. The local board of health shall issue such a certificate on the advice of a registered physician approved by it. The statute is constitutional.

The constitutionality of vaccination statutes has been passed on in many cases, and the uniform conclusion has been that they constitute a valid exercise of the police power of the state. In some instances the act was compulsory in terms. In others, the compulsion was indirect or partial, as it is here. Under the New Hampshire statute, the child may not attend school unless vaccinated or properly excused from vaccination, while, by other provisions, the parent or custodian of the child is liable to certain penalties for failing to cause the child to attend. According to all the cases cited, these statutes are valid. The supposed conflict of authority, referred to in *People* v. *Lansing Board of Education*, 224 Mich. 388, 195 N. W. 95, relates only to questions conferring powers on boards and officers. From the general proposition that there is legislative power to enact a compulsory vaccination law, there has not been dissent by any court of last resort.

In the instant case a proper certificate was furnished in 1924. The demand for a new certificate in 1925 precipitated the present controversy. The statute is silent as to how often a certificate may be required. It was the legislative intent to provide efficient protection, and the statute is to be construed accordingly. Conditions making it improper to vaccinate the child at one time might not exist at a later date. Assuming that the physical conditions might be such as to show that the child never would be a proper subject for vaccination, and also assuming that, in such a case, no more than one certificate could be required, the point of the present controversy was not reached. There was nothing to show the existence of such conditions here. The plaintiff rested his case on the proposition that, in all cases, one certificate is sufficient for all time. This construction cannot be adopted. The meaning of the statute is that a new certificate may be required whenever there is reasonable ground to believe that there may have been such a change of conditions that the child is no longer "an unfit subject for vaccination."

Nor could the contention that the burden was on the defendants to justify their action be sustained. This was, in substance, a petition to review the action of a board whose findings of fact and orders were conclusive, if there was no error of law. Unless the board violated some rule of law, its conclusion was final. It was for the complaining party to show such violation. The case was here on the pleadings in which the grounds for the defendants' action in demanding a new certificate were not disclosed. Until it appeared that they acted in violation of some rule of law, their conclusion must stand.

In Massachusetts, a local rule requiring a new certificate every two months was sustained as "not a matter of law so unreasonable or arbitrary as to be invalid." *Spofford* v. *Carleton*, *238* Mass. 528, 131 N. E. 314. It was unnecessary to go as far as that, in the present case. If it was assumed that the school board could not regulate the matter by a general rule, but must act on the facts of each individual case, no violation of the plaintiff's rights would appear.

Good Grounds for Refusal to Submit to Operation

(Wallins Creek Collieries Co. v. Hicks et al. (Ky.), 287 S. W. R. 713)

The Court of Appeals of Kentucky, in affirming a judgment which affirmed an award of the compensation board, says that section 6 of the workmen's compensation act of that state provides that

> No compensation shall be payable for the death or disability of an employee if his death is caused, or if and in so far as his disability may be aggravated, caused or continued, by an unreasonable refusal, failure or neglect to submit to or follow any competent surgical treatment or medical aid or advice.

Whether or not the action of an employee in refusing to submit to a surgical operation or in failing to follow competent medical advice is reasonable is almost universally held to be a question of fact to be determined by a careful inquiry into the circumstances of each case. In the instant case the injury for which compensation was sought was a fracture of the leg at the head of the tibia and very close to the knee joint. The employer's physician testified that he advised the injured employee that an operation on the leg was necessary in order to reduce the displacement that necessarily would result but for such operation, and that the condition of the employee at the time of the trial was due in large measure to his refusal to submit to the operation. The testimony of the physician disclosed that he purposed in the operation to make use of metal screws or wires in order to hold the bones in place. But while he believed that the operation would have been successful, he admitted that he could not at any time guarantee that it would be so. He further admitted that in the operation it might be that the fluid in the knee would be drained and the knee joint become stiff, depending on whether infection set in, of which there was some danger. On the other hand, the employee's family physician testified that the lungs of the injured employee had for a number of years been in a very weak condition, and that an anesthetic would in all probability further inflame them, with probable resulting pneumonia. He also testified that, although he did not advise against the operation on account of the proposal to use metal screws or wires, yet he was strongly of the opinion that kangaroo tendons were the only safe means to use to bind the bones together, because during his hospital services it had been his experience that, in the overwhelming percentage of cases in which metal screws or wires had been used, a subsequent operation had to be performed to take them out; also that he thought the danger of infection in the knee joint from the proposed operation highly probable, and that he had advised the injured employee that the operation was by no means an assured success.

Considering these facts, that the injured employee was a man whose lungs were in an inflamed condition, which condition would be aggravated by the anesthetic with very probable resulting pneumonia, which in his condition was exceedingly dangerous to him, and that the physicians could not agree on the character of binders to be used on the bones, and that infection to the knee joint with consequent permanent stiffening of that joint was quite possible during this operation, and the lack of assurance of success of the operation, it could not be said that there was no competent evidence to sustain the compensation board's finding that the refusal on the part of the injured employee to submit to the operation was not unreasonable. This being so, there was nothing for the circuit court to do but to affirm the award of the board so finding, and nothing for this court to do but to affirm that judgment of the circuit court.

Representations of Insured—Not Waiving Privilege

(Travelers' Ins. Co. v. Pomerantz et al. (N. Y.), 218 N. Y. Supp. 490)

The Supreme Court of New York, appellate division, first department, in affirming a judgment for the defendants, says that this was a suit in equity to obtain a rescission of a policy of life insurance on the ground of material misrepresentations in the application for the insurance, which contained the representations: "I am not deformed. I have had no bodily or mental disease, nor have I received medical or surgical attention within the past five years—except as herein stated," no exceptions being noted to the general declaration. The implication from the conjunction of the statements that the applicant had no disease, nor had he received medical or surgical attention within five years, not separated, as was the request for information as to deformity, was that the company was seeking information, not as to temporary disorders or slight functional disturbances, which did not impair the general health or threaten the life of the applicant, but as to ailments and illnesses of severity or gravity, and having some bearing on the physical welfare of the applicant at the time his declaration was made, or which were likely to affect him in the future; that is, it was requiring a declaration as to an impairment of the constitution and functions of the applicant which would be classed in the common mind as a disease. This would exclude infrequent and slight attacks of illness, and include only those grave, important and serious conditions that affect the system and tend to shorten life.

The evidence showed that during the five years prior to the date of the application the insured had been visited by physicians ten or twelve times without continuity and at varying periods. The physicians testified that he was "sick" or "ailing," but on no occasion was sick enough to be in bed. There was no evidence as to just what ailments or illnesses he suffered from at that period or for what he was treated. The testimony concerning prescriptions given to him by the physicians whom he visited indicated that the medicines he received were such as are usually prescribed for a cold, or for a disturbed stomach digestion, or sleeping powders, because he had not slept well on two occasions. The testimony of the several physicians who had attended him on these twelve visits was excluded, because of the privileged character of the communications had between the physician and the patient, and thus the exact ailment from which he suffered was not made plain. While the insurance company did not urge directly that this court should draw an unfavorable inference from this claim of privilege, which excluded the nature of the disease, yet there was a note in the argument which would give the impression that the court could regard the excluding of this evidence by the defendant as a basis on which to conclude that something unfavorable to him would be disclosed, if the testimony was permitted by waiving the privilege. But such a view loses sight of the fact that proof of material misrepresentations avoiding a contract must be made by the parties asserting them. The defendant was under no duty to waive a statutory privilege for the purpose of assisting the plaintiff in abandoning its contract, if proof could not be made, except through the acquiescence of the defendant, that his previous condition of disease warranted an avoidance of the policy.

Moreover, there was proof which the plaintiff could have made of the physical condition of the applicant, which it either neglected or avoided making. He had advised the plaintiff at the time of his application for its policy that he had the year previous taken out a policy in another company. It also appeared that he was physically examined by a physician of the plaintiff, before its policy was issued. Neither of these physicians was called as a witness at the trial, nor was anything proved which accounted for their absence. From this fact it might be inferred that, when these policies were issued, the examining physicians found the applicant in good health. This testimony could not have been excluded as privileged communications between the patient and the physicians, had it been offered, and would have disclosed any real bodily infirmity, such as was described, as a mental or bodily disease, if it existed.

There was nothing, therefore, on which to found a ruling that the defendant suffered from or was treated for any serious complaint, ailment, illness or disease within the five years prior to the issuance of the policy, within the meaning of the language employed in the application.

Information Obtained by Government Medical Examiner

(Cruce v. Missouri Pac. R. Co. (Ark.), 287 S. W. R. 583)

The Supreme Court of Arkansas, in reversing a judgment that was rendered for the defendant in this personal injury case, says that the plaintiff alleged that a box full of tools fell, striking him with such force that it caused an abrasion of the skin at the back of his neck and the small of his back, which paralyzed his right leg and permanently crippled him. He had served as a private in the World War. He contended that the judgment for the defendant should be reversed on the ground that the trial court had erred in permitting a physician to disclose information obtained in making an examination of him in August, 1921, and in testifying to communications received during the examination from the plaintiff relative to injuries which he had sustained during army service in France. The testimony of the physician was objected to on the ground that the communications and information were privileged, because obtained by a physician in the examination of a patient. The physician was the medical examiner for the government under the veterans' compensation act at the time he examined the plaintiff in August, 1921. The plaintiff had presented a claim to the government for disability compensation. Under that act, veterans of the World War are entitled to medical and hospital services free of charge. The physician testified that he made the examination of the plaintiff with the view of sending him to a hospital, and that, after making the examination, he sent him to the Army and Navy Hospital at Hot Springs. Section 30 of chapter 320, act June 4, 1924, 43 Stat. 615, makes the record confidential and provides that no disclosures shall be made unless within one of the exceptions provided for. This court thinks that in view of the fact that the government furnishes its veterans free medical and hospital services, and the further fact that this physician examined the plaintiff with a view to sending him to a hospital, and did send him to the Army and Navy Hospital at Hot Springs, the confidential relationship between physician and patient attached when the plaintiff presented himself to the physician for examination. The physician's testimony relative to the physical condition of the plaintiff when he examined him, and touching communications he received from the plaintiff in the course of the examination, was incompetent.

Reasonable Precaution Taken to Account for Sponges

(Rourk et al. v. Peters et al. (La.), 110 So. R. 106)

The Supreme Court of Louisiana, in affirming a judgment in favor of the defendants, says that this was an action for damages growing out of a cesarean section operation. All the sponges used in the operation had been previously prepared by the nurses who delivered them to the surgeons in the operating room. The sponges were counted by the nurses prior to the operation and put up in packages. The operation was performed and the child safely delivered. All sponges that were visible to the eye or discoverable by touch were removed from the abdomen. The supervising nurse was called on to account for all sponges that had been used in the operation. She counted the sponges and reported one small one missing. Pending a search for the missing sponge, the patient was kept under the anesthetic; and, on the supervising nurse reporting that the missing sponge was found, the operation was completed and the wound closed. The patient did not entirely recover from the operation, and twenty-two days thereafter was again taken to the hospital, and an examination under the roentgen ray and fluoroscope failed to indicate the presence of any foreign substance in the body or the necessity for another operation. The patient continued to suffer, however, and eventually went to Memphis, where a second operation was performed and a large lap or towel sponge was removed from her abdomen, after which operation she regained her health. A number of decisions were cited by both counsel, but the supreme court does not consider it necessary to review them, as the testimony conclusively showed that every reasonable precaution was taken to account for all sponges used in the operation before the wound was closed, while the operation was so properly and skilfully performed that the life of both mother and child was saved, and there was no charge in the petition of any want of skill in the performance of the operation.

Society Proceedings

COMING MEETINGS

American Association for the Study of the Feebleminded, Cincinnati, June 4-6. Dr. H. W. Potter, Thiells, New York, Secretary.

American Ophthalmological Society, Quebec, Canada, June 27-29. Dr. Emory Hill, Professional Building, Richmond, Va., Secretary.

American Psychiatric Association, Cincinnati, May 31. Dr. E. D. Bond, 4401 Market Street, Philadelphia, Secretary.

American Psychopathological Association, Cincinnati, June 3. Dr. M. W. Peck, 520 Commonwealth Avenue, Boston, Secretary.

Illinois State Medical Society, Moline, May 31-June 2. Dr. H. M. Camp, Lahl Building, Monmouth, Secretary.

Maine Medical Association, Portland, June 13-15. Dr. B. L. Bryant, 265 Hammond Street, Bangor, Secretary.

Massachusetts Medical Society, Boston, June 6-8. Dr. W. L. Burrage, 182 Walnut Street, Brookline, Secretary.

Michigan State Medical Society, Mackinac Island, June 14-17. Dr. F. C. Warnshuis, Grand Rapids National Bank Bldg., Grand Rapids, Sec'y.

Minnesota State Medical Association, Duluth, June 30-July 2. Dr. E. A. Meyerding, 11 West Summit Avenue, St. Paul, Secretary.

Montana, Medical Association of, Missoula, July 13-14. Dr. E. G. Balsam, 222 Hart-Albin Building, Billings, Secretary.

National Association for the Study of Epilepsy, Cincinnati, May 30-31. Dr. A. L. Shaw, 108B Olbiston Building, Utica, N. Y., Secretary.

New Hampshire Medical Society, Portsmouth, June 22-23. Dr. D. E. Sullivan, 7 North State Street, Concord, Secretary.

New Jersey, Medical Society of, Atlantic City, June 9-11. Dr. J. B. Morrison, 66 Milford Avenue, Newark, Secretary.

North Dakota State Medical Association, Grand Forks, June 1-2. Dr. J. G. Lamont, San Haven, Acting Secretary.

Rhode Island Medical Society, Providence, June 2. Dr. J. W. Leech, 369 Broad Street, Providence, Secretary.

West Virginia State Medical Association, White Sulphur Springs, June 21-23. Mr. Joe W. Savage, 303 Professional Building, Charleston, Executive Secretary.

Wyoming State Medical Society, Cheyenne, June 27-29. Dr. Earl Whedon, Sheridan, Secretary.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to THE JOURNAL in America for a period of three days. No foreign journals are available prior to 1921, nor domestic prior to 1923. Periodicals published by the American Medical Association are not available for lending, but may be supplied on order. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

American Journal of Diseases of Children, Chicago

33: 363-550 (March) 1927

*Primary Infection in Tuberculosis. E. G. Stoloff, New York.—p. 363.
*Unusual Forms of Periosteal Elevation. S. Karelitz, Hartford, Conn.—p. 394.
*Supplementary Feeding of School Children. A. F. Morgan and M. A. Tanner, Berkeley, Calif.—p. 404.
*Measles Prophylaxis. S. Karelitz, New York, and S. Levin, Ann Arbor, Mich.—p. 408.
*Scarlet Fever: II. Prophylaxis. J. A. Toomey, R. M. Fullerton and M. E. Kishman, Cleveland.—p. 420.
*Id.: III. Cases Untreated by Specific Serums or Antitoxins. J. A. Toomey and E. G. Dolch, Cleveland.—p. 424.
*Transfused Blood in Infants with Severe Malnutrition. H. Bakwin, New York, P. S. Astrowe, Kansas City, and H. Rivkin, New York.—p. 442.
*Lactate Metabolism in Infants. M. B. Brahdy, New York.—p. 451.
Tuberculosis in Childhood: Its Frequency, Sources and Development, and How to Combat It, Shown by Experiments in Norway. F. Harbitz, Oslo, Norway.—p. 458.

Primary Infection in Tuberculosis.—A discussion of the primary infection of tuberculosis in the child is presented by Stoloff, with particular reference to the results obtained in a statistical analysis of 6,329 fluoroscopies made in the outpatient department of the University of Vienna Kinderklinik. There were 584 single primary foci, or 9.27 per cent, and twenty-seven multiple foci, or 9.65 per cent. Localization was lobar, and a comparison was made with the observations of other pathologists and roentgenologists. The distribution of single primary foci in this series was mostly on the right side and in the lower lobes, so that the right lower lobe showed the most foci; next in order were the left lower lobe, the right upper lobe, the left upper lobe and the right middle lobe. Regional disease of the hilum glands (on the same side) was found in 423, or 72.52 per cent, of the cases presenting a single primary focus. Extension from right to left was as frequent as from left to right. Pleuritic involvement was observed in only thirty patients, or 0.05 per cent. The total number of children with definitely positive tuberculin reactions was 4,494, or 71.02 per cent. There were only 253, or 3.8 per cent, children with definitely negative Pirquet and Mantoux reactions. There were 665 children, or 10.6 per cent, who gave a negative Pirquet reaction but on whom further tests were made.

Unusual Forms of Periosteal Elevation.—Karelitz reports two cases of neuroblastoma and leukemia, respectively, in both of which there was roentgen-ray evidence of periosteal elevation of the long bones. He says that periosteal elevation which is nonsyphilitic and not scorbutic in origin in childhood should suggest the possibility of leukemia or allied conditions, or neoplasm such as neuroblastoma.

Supplementary Feeding of School Children.—The supplementary lunches given by Morgan and Tanner to forty-seven children, some underweight, some normal and some overweight, consisted of one orange, four pulled figs and one-half pint of milk. In eight weeks, the average gains in weight of the groups given one orange or four pulled figs daily for supplementary lunch were practically the same, namely, 1.64 and 1.62 pounds. However, some gains were made in 10 per cent more of the group which was given figs than of the control group which was not given any supplementary feeding.

Measles Prophylaxis with Blood Serum.—Karelitz and Levin assert that the best way to prevent measles or to modify its course is by the use of convalescent serum or, if this is not available, by the use of adult serum or whole blood.

Scarlet Fever Prophylaxis.—In a series of cases reported on by Toomey et al., the immunity conferred by active immunization against scarlet fever has lasted for eighteen months. Definite evidence has not developed to justify the use of scarlet fever antitoxin as a measure of passive immunity.

Scarlet Fever Mortality.—In an analysis made by Toomey and Dolch of 1,658 scarlet fever cases in Cleveland, the mortality rate in untreated patients is extremely low. The patients who died had complicating factors which might have caused death, even though scarlet fever antitoxin had been given.

Blood Transfusion in Malnutrition.—The results obtained by Bakwin et al. indicate that the red blood cells of the donor remain in the circulation of the infant receiving transfusion for a considerable length of time.

Lactate Metabolism in Infants.—The possibility of explaining the beneficial effects of lactate milks by the action of the lactate ion is presented by Brahdy. Observations on the lactate of the blood in infants following the feeding of lactic acid milks are compared with control infants following ordinary feedings. Absence of marked variation between the two series leads to the conclusion that the lactate ion does not in any way directly influence the peripheral metabolism. The important rôle of the liver is emphasized, and it is suggested that the lactate ion may act on the complex metabolism in this organ.

American Journal of Tropical Medicine, Baltimore

7: 71-148 (March) 1927

*Pfeiffer Reaction with Leptospira in Yellow Fever. A. W. Sellards, Boston.—p. 71.
Diarrhea in Monkeys (Macacus Rhesus) with Esophagostomum, Strongyloides and Trichomonas Infections. A. Branch and D. M. Gay, New York.—p. 97.
Diet and Disease. W. E. Deeks, New York.—p. 111. (To be Cont'd.)

Pfeiffer Reaction with Leptospira.—The serum from eleven patients examined by Sellards about three and one-half months after recovery from typical yellow fever gave negative Pfeiffer reactions to *Leptospira icteroides* and *L. icterohemorrhagiae*. As controls for these negative tests, the serum of two guinea-pigs immune to *L. icterohemorrhagiae* gave positive Pfeiffer reactions with *L. icteroides* and *icterohemorrhagiae*. These results, therefore, furnish additional evidence of the identity of *L. icterohemorrhagiae* and *L. icteroides*.

Archives of Internal Medicine, Chicago

39: 317-464 (March) 1927

*Effect of Ultraviolet Light on Oxygen Consumption and on Total Metabolism. E. H. Mason, Montreal, and H. H. Mason, New York.—p. 317.
*Carbohydrate Tolerance in Normal Persons and in Nondiabetic Patients. A. H. Rowe and H. Rogers, Oakland, Calif.—p. 330.
*Estimation of Pancreatic Enzymes: Clinical Value of Such Determinations. L. Martin, Baltimore.—p. 343.
*Value of Duodenal Drainage for Diagnosis of Biliary Disease. L. Martin, Baltimore.—p. 356.
*Mineral Salt Content of Blood in Disease. A. S. Blumgarten and G. L. Rohdenburg, New York.—p. 372.
*Ephedrine. W. S. Middleton and K. K. Chen, Madison, Wis.—p. 385.
Comparative Study of Ephedrine, Pseudo-Ephedrine and β-Phenyl-Ethylamine. K. K. Chen, Madison, Wis.—p. 404.
*Glycolysis in Normal and in Leukemic Blood. M. Falcon-Lesses, Boston.—p. 412.
*Erythrocyte Count in Arthritis: I. E. G. Peirce and R. Pemberton, Philadelphia.—p. 421.
*Id.: II. C. Y. Crouter and F. A. Cajori, Philadelphia.—p. 429.
Spastic Esophagus and Mucous Colitis: Treatment by Progressive Relaxation. E. Jacobson, Chicago.—p. 433.
Experimental Peritonitis and Survival Following Intraperitoneal Injection of B. Coli. B. Steinberg and H. Goldblatt, Cleveland.—p. 446.
Passage of Bacteria from Peritoneal Cavity into Lymph and Blood. B. Steinberg and H. Goldblatt, Cleveland.—p. 449.
*Spleens from Gaucher's Disease and Lipoid-Histiocytosis: Chemical Analysis. W. Bloom and R. Kern, Chicago.—p. 456.

Effect of Ultraviolet Rays on Metabolism.—Experiments were made by the Masons to determine whether the total metabolism of the human organism is affected by maximum exposures of ultraviolet rays from a quartz mercury vapor lamp. Studies were conducted in ten cases. Eight of these patients manifested a notable lowering of heat production. This decrease in total metabolism has been associated with a slowing of the pulse rate. In no case was an increase of metabolism found. The subjects who reacted to exposure of ultraviolet rays with a lowering of their total meta were normal persons in whom there was a satisfactory production of pigment, and persons who had an increased quantity of circulating bilirubin. Buckwheat, probably through the medium of phytoporphyrin, can produce a fall in total metabolism after exposure to ultraviolet rays.

Carbohydrate Tolerance.—The research reported on by Rowe and Rogers was inspired by the opinion held by Gray and others that a test meal of 100 Gm. dextrose might do harm to a diabetic patient, and that a starch meal might best be used, at least as a preliminary. In the response of twenty normal and five nondiabetic subjects to a meal of two shredded wheat biscuits and 3 ounces of milk, the average peak at thirty minutes was 142. The average duration was less than two hours. As compared with the average response of these subjects and that of sixteen normal and four nondiabetic subjects to the shredded wheat meal and the usual 100 Gm. dextrose, the curve given by the former is flatter and of shorter duration. A consideration of these data indicates that the shredded wheat meal is a rather small load, and it is suggested that a combination of sugar and shredded wheat and milk be tried. Such a meal would appear to have the advantage of availability, palatability and near approach to an ordinary breakfast. The average curve obtained in four persons given 125 Gm. dextrose, as compared with the average curve for those given 100 Gm., shows a greater elevation of the blood sugar level and a prolongation of the curve. This confirms the observation of others that an increase in the load tends to prolong the curve. A study of sugar elimination in these subjects indicates the presence of glycuresis in many persons following both types of meal. The sharp demarcation between glycuresis and glycosuria suggests the presence of a definite renal threshold.

Estimating Function of Pancreas.—A method of approach which will give a fairly faithful record of the functional state of the pancreas in its production of the so-called external enzymes is offered by Martin. It is described in detail. The amount of equipment needed is small, and the time consumed not much longer than that needed in making chemical studies of the blood. It is of paramount help in making a differential diagnosis between choledocholithiasis and cancer of the head of the pancreas.

Value of Duodenal Drainage.—As a diagnostic procedure, Martin regards medical drainage of the biliary duct as being of relatively little value.

Mineral Salt Content of Blood.—The mineral salt content of the blood was studied by Blumgarten and Rohdenburg in 173 patients suffering from various diseases. The most striking pathologic conditions in which a disturbance of the mineral salts in the blood was determined were carcinoma, leukemia and purpura hemorrhagica. In carcinoma, there was a strikingly low magnesium content and a low calcium content in 50 per cent of the cases, but not so marked a tendency toward hypermineralization. In two cases of leukemia and purpura hemorrhagica there was a marked reduction in the potassium content and a compensatory increase in the sodium and the calcium content, probably as a result of hemorrhage. High magnesium contents were found in arteriosclerosis and in other conditions which usually are associated with advancing years. Chronic nephritis with hypertension showed a low calcium and a high sodium content. Disease of the gallbladder showed a high total salt and a high magnesium content. There were a number of tendencies toward changes in the proportion of various mineral substances in other diseases, but these were not sufficiently striking to be significant.

Action of Ephedrine.—From fifty-eight observations on forty-one patients, Middleton and Chen conclude that ephedrine, in the form of the sulphate or the hydrochloride, when given by mouth (in six instances the drug was injected intramuscularly) in varying doses, causes an average rise of systolic blood pressure of 28.5 mm. of mercury. The average duration of this rise is approximately five hours and nine minutes. The diastolic pressure, as a rule, is also elevated. The pulse is more frequently accelerated than it is slowed. The therapeutic dose advocated for oral administration in adults is from 60 to 90 mg. (1 to 1½ grains). A 10 per cent solution of ephedrine sulphate, or the same concentration with the addition of 0.1 per cent homatropine hydrobromide, may be used locally as a mydriatic for routine ophthalmoscopic examinations. Ephedrine, in a group of twenty-five unselected patients with bronchial asthma, controlled the attacks in nine instances and caused improvement in eight others, but showed inconclusive or negative results in the remainder.

Glycolysis in Normal and Diabetes Blood.—About 100 blood sugar determinations were made by Falcon-Lesses on blood from nine healthy persons, six patients with chronic myelogenous leukemia, and one each with chronic lymphatic leukemia, erythremia and pernicious anemia. None of the leukemic patients had received roentgen-ray or radium treatment for at least a month prior to the test of their blood. Glycloysis in normal blood, in vitro, at body temperature, is complete in six hours when the initial sugar concentration is less than 100 mg. per hundred cubic centimeters. Glycolysis in the blood of chronic myelogenous leukemia patients with a high leukocyte count was from two to three times as rapid as normally, so that the process was often complete in two hours. The large number of leukocytes may not be the only reason for the rapid glycolysis. There is some evidence to suggest that very immature or atypical bone marrow cells hasten the process more than mature or typical ones. Lymphocytes may influence the rate differently from nucleated bone marrow cells. In the blood in one case of erythremia, glycolysis took place more rapidly than in normal blood. By contrast, in the blood from a patient with pernicious anemia, glycolysis was slower than in normal blood. Glycolysis in plasma alone, or in blood after injury to the cells by water, was much slower than in intact blood prevented from clotting with heparin.

Erythrocyte Count in Arthritis.—The observations made by Peirce and Pemberton are interpreted as indicating altered circulatory conditions in arthritis, probably in the nature of vasoconstriction, and are in line with other evidence to the same end. It is also evident that even in normal persons the drop of blood first appearing, especially if the stab is shallow, does not necessarily yield a blood count representative of the general circulation, and hence should be discarded.

Erythrocyte Count in Arthritis.—The conclusions of Peirce and Pemberton are, in general, confirmed by Crouter and Cajori. In normal persons, the erythrocyte count of the first drop of finger blood was frequently (in 43 per cent) higher than the count of the freely flowing blood. The majority of patients with arthritis showed the opposite condition, and had a lower count in the first drop of finger blood than in the freely flowing blood.

Chemical Analysis of Gaucher Spleens.—Bloom and Kern assert that a few cases of a form of large cell splenomegaly, for which the name lipoid-histiocytosis is proposed, have in the past been erroneously reported as examples of Gaucher's disease. The microchemical reactions of the material present in the large cells in lipoid-histiocytosis (Niemann's disease) indicate that this material is lipoid in character and probably belongs to the phosphatid group. In Gaucher's disease, the large cells do not give any of the lipoid reactions in typical manner. They usually give the reaction for iron. Chemical analyses prove the spleen of Niemann's disease to contain less total nitrogen than the Gaucher or the normal spleen, but a decidedly increased amount of phosphorus. The total ether and alcohol soluble extractives are also greatly increased in Niemann's disease. The stored material in lipoid-histiocytosis is chiefly phosphatids, probably lecithin and cholesterol. In Gaucher's disease, the material is chiefly kerasin.

Archives of Otolaryngology, Chicago

5: 209-302 (March) 1927

Studies of Children in Chicago Public Schools for Deaf. G. E. Shambaugh et al., Chicago.—p. 209.
Chronic Rhinopharyngeal Disease. B. R. Shurly, Detroit.—p. 220.
Intranasal Radium Therapy in Malignant and Benign Tumors. E. R. Van Meter, St. Louis.—p. 225.
Chronic Otitis Media Complicated by Cholesteatoma, Labyrinthitis and Suppurative Meningitis. B. F. Glowacki, Detroit.—p. 230.
Endothelioma of Nose. H. A. Fletcher, San Francisco.—p. 234.
Diagnostic Esophagoscopy in Ulcerations. R. McKinney, Memphis, Tenn.—p. 238.

*Fusospirochetal Abscess of Tonsil. I. Pilot, Chicago.—p. 244.
Chronic Tonsillitis: Microscopic Pathology. R. F. Nelson, Oakland, Calif.—p. 249.
*Correction of Saddle Nose. J. N. Roy, Montreal.—p. 258.

Fusospirochetal Abscess of Tonsil.—A chronic form of fusospirochetal infection of the tonsil is described by Pilot. The exudate is usually foul smelling, and contains streptococci in addition to the anaerobes. The lesion is a chronic abscess, often communicating with a tonsillar crypt.

Correction of Saddle Nose.—Roy believes that the ideal method for the correction of depressed nasal deformities consists in making an internal incision and, after having prepared a tunnel, inserting a piece of the cartilage of the first floating rib. When the graft is placed in position, the application of two little bands of adhesive tape transversally to the nasal bones fixes it, and consequently offers better conditions for adhesion with the surrounding tissues. Carried out in this manner, the operation is more likely to be successful by this than by any other method.

Archives of Pathology and Laboratory Medicine, Chicago

3: 361-576 (March) 1927

*Degenerative Changes in Skeletal Muscles, Particularly in Infectious Diseases. B. Stenström, Stockholm, Sweden.—p. 361.
*Diffuse Tumors of Leptomeninges. C. L. Connor and H. Cushing, Boston.—p. 374.
*Fever with Renal Carcinoma. D. Nicholson, Winnipeg, Can.—p. 393.
Anterodemian Mero-Acrania (Nosencephalos) Combined with Hypogastroschisis Dextra and Malformation of Fingers and Toes. E. Pribram, Chicago.—p. 400.
*Atheromatous Degeneration of Arterial Wall: Result of Hydrodynamic Mechanism. V. H. Moon, Indianapolis.—p. 404.
*Determination of Icterus Index. A. L. Brown, New York.—p. 409.
*Preservation of Blood for Chemical Analysis. F. F. Schwentker, Baltimore.—p. 410.
Suprarenal Gland. H. L. Jaffe, New York.—p. 414.

Degenerative Changes in Skeletal Muscles in Various Diseases.—The skeletal muscles were examined by Stenström in forty-seven cases of different diseases at various ages with regard to waxy and fatty degeneration and to brown pigmentation; in all, they proved to be more frequent and general than hitherto known. More or less waxy degeneration was found in all cases, most marked in the diaphragm, but without distinct difference for various age groups and without any relation to the degree of fever. More or less pronounced fatty degeneration was found in thirty-two of forty cases. The diaphragm was possibly a little more often the seat of the changes than the other muscles. In almost every case, waxy degeneration was present also. There was no obvious relation to the general individual state of nutrition. In eighty-eight adults, 4 per cent, fatty degeneration was observed. Any distinct relation between special diseases and muscular fatty degeneration was not established, but in cases of tumor the degeneration seems to be frequent, and in cases of sepsis in adults it is constant. Often there is fatty degeneration of the heart, liver and kidney at the same time. Brown pigmentation was found only in muscles of persons over 50 years of age.

Diffuse Tumors of Leptomeninges.—Two diffuse tumors of the meninges which differed greatly in their microscopic structure are described by Connor and Cushing. In neither case was a primary tumor visible to the naked eye, and without microscopic examination both might have been recorded as examples of pseudotumor cerebri. The first of these tumors represents a true sarcomatosis (endotheliomatosis) of the meninges, the primary lesion apparently being multiple and affecting the adventitial or perivascular sheaths of the cortical blood vessels. The second tumor represents an invasion of the leptomeningeal spaces by largely undifferentiated embryonic cells (medulloblasts). As these primitive round cells, commonly miscalled sarcoma cells, tend to undergo a certain degree of differentiation and when properly stained show occasional neuroglial fibrils, a condition deserving the designation meningiogliomatosis is the consequence. The primary origin of both of these tumors was in the region of the flocculus, an area which appears to be a favorite point of origin for neoplastic lesions.

Fever with Renal Cancer.—Nicholson reports the case of a woman, aged 38, who suffered from gastro-intestinal and urinary disturbances, with vague neuralgic pains, for a period of about two years. Fever, as high as 104 F., was one of the most marked signs and was present almost continuously. Autopsy showed a renal carcinoma of the lower pole of the right kidney, with secondary growths in the left suprarenal, spleen, liver and lungs.

Local Anemia Cause of Atheromatous Degeneration.—Moon asserts that the proposition that arterial hypertension produces local anemia in the artery wall can be mathematically demonstrated. The local anemia thus produced may be a cause of atheromatous degeneration. This explanation is in agreement with many known facts concerning the occurrence and course of such degeneration.

Determination of Icterus Index.—The test devised by Brown is primarily a comparison of the color of the blood plasma or serum with a series of permanent arbitrary standards, consisting of fifteen tubes containing multiples of the unit color, the strength of the color being etched on the tube. A solution of chemically pure potassium dichromate is prepared, 0.15 Gm. being used in 100 cc. of water and 2 drops of concentrated sulphuric acid; a series of dilutions with distilled water, fourteen lower standards, are also prepared. This solution, kept in air-tight containers, is permanent and has the color of a pure bilirubin solution. The permanent standards are placed in white glass tubes of uniform bore and thickness, filled two-thirds full and sealed. An identical tube is graduated with six 0.5 cc. marks; 0.5 cc. of the serum to be examined is placed in this tube. The degree of color of this sample is determined by matching it with the standards that are placed on each side of the specimen tube and examined through small holes against a background of ground glass. The number of the tube which approximates that of the sample is taken as the icterus index of the specimen.

Preservation of Blood for Chemical Analysis.—Schwentker asserts that sodium fluoride and thymol, when used in the proportions of 0.01 Gm. of fluoride and 0.001 Gm. of thymol to each cubic centimeter of blood, are efficient preservatives when the blood is analyzed by the Folin-Wu system. This preservative mixture is equally effective for the determination of creatinine, uric acid, urea and nonprotein nitrogen, when the system of analysis as outlined by Victor Myers is employed. It may not be used, however, when the sugar values are determined by the Lewis Benedict method, since consistently greater results varying from 7.5 to 50 per cent are obtained. This increase is apparently due to a chemical participation of the preservatives in the reactions of the analysis.

Archives of Surgery, Chicago

14: 621-792 (March) 1927

*Fat Embolism: Experimental Production Without Trauma. E. P. Lehman and R. M. Moore, St. Louis.—p. 621.
*Undescended Testis. O. H. Wangensteen, Minneapolis.—p. 663.
*Cardiac Output in Dog During Ether Anesthesia. A. Blalock, Nashville, Tenn.—p. 732.
*Experimental Chronic Duodenal Obstruction. B. N. Berg, F. L. Meleney and J. W. Jobling, New York.—p. 752.
*Id.: II. F. L. Meleney, B. N. Berg and J. W. Jobling, New York.—p. 762.
Review of Urologic Surgery. A. J. Scholl, Los Angeles, and others.—p. 772.

Fat Embolism.—Lehman and Moore report the results of their studies, but make no claims or assertions. They believe that their review emphasizes the absence of agreement on any phase of the problem, and does not offer a single logical explanation to unify the varying clinical and pathologic observations.

Undescended Testis.—This extensive experimental and clinical study by Wangensteen is summarized very briefly, as follows: The undescended testis owes its imperfection to its position. Scrotal fixation of the undescended testis in its physiologic position before the histologic changes incident to puberty occur will enable it to develop normally. The bibliographic references given number 302.

Cardiac Output During Ether Anesthesia.—Blalock used the Fick method, and found that ether anesthesia causes an increased cardiac output (average increase 76 per cent). The output is less than normal only when the degree of anesthesia is profound. The increased output is not associated with an increased oxygen consumption, but is associated with a diminution in the oxygen coefficient of utilization. This change is associated with an increase in the hydrogen ion concentration of the blood, with a decrease in the carbon dioxide content of the blood, and may or may not be accompanied by a diminution in the percentage saturation of the arterial blood.

Experimental Chronic Duodenal Obstruction.—A method of producing chronic duodenal obstruction in the dog is described by Berg et al. A wide fascial flap, attached by a broad pedicle to the posterior sheath of the rectus muscle, is used to obstruct. Dilatation and hypertrophy of the duodenum developed above the obstruction. Fluoroscopic examinations confirmed the existence of prolonged duodenal stasis. Alterations in the contractions of the antrum, the pyloric sphincter and the duodenum occurred, and a rhythmic cycle between the three was observed. Except for emaciation in some of the dogs and occasional vomiting, there were no symptoms of intoxication.

Bacterial Flora of Chronically Obstructed Duodenum.—In the duodenum of dogs, certain bacteria are normally present. After partial obstruction of the duodenum, Meleney et al. found that these organisms are enormously increased in numbers, varying with the degree of obstruction and the extent of dilatation of the intestine above the obstruction. The greatest increase in numbers was with the organism of the *Bacillus coli* group, but there was no striking difference between this and the other types. This increase was maintained for a considerable period, but in some cases there was a decrease later, even though the obstruction persisted. The flora of the duodenum in any particular animal was not constant, now one and now another type predominating. The intestine immediately below the obstruction was usually more or less collapsed. In more than half of the cases of this series there were fewer viable organisms in the lower jejunum far below the obstruction than in the intestine just above the obstruction.

Endocrinology, Los Angeles

10: 541-656 (Nov.-Dec.) 1926

*Mode of Transport of Thyroxin by Blood. B. M. Zavadovsky and M. A. Novikov, Moscow.—p. 541.

Application of Axolotl Metamorphosis Reaction to Quantitative Assay of Thyroid Gland Hormones. B. M. Zavadovsky and E. V. Zavadovsky, Moscow.—p. 550.

*Anaphylaxis and Internal Secretions. C. Hajós, Budapest, Hungary.—p. 560.

*Effect of Extracts of Posterior Lobe of Pituitary Body on Circulation. S. Vincent and F. R. Curtis, London.—p. 567.

*Cardaissin: New Cardiac Accelerator Extracted from Suprarenal Gland. H. G. Cameron, Saskatoon, Sask.—p. 577.

*Pancreas in Tuberculosis. L. G. Robinovitch, Golden, Colo., and G. W. Stiles, Jr., Denver.—p. 602.

Mode of Transport of Thyroxin by Blood.—The results obtained by Zavadovsky and Novikov indicate that the serum appears to play a dominant and exclusive rôle in the matter of carrying thyroxin. Erythrocytes do not play a part in the matter of transporting this hormone. Fibrin plays a passive rôle.

Anaphylaxis and Internal Secretions.—Hajós asserts that sensitiveness in experimental anaphylaxis is increased by thyroid extract and by insulin; is decreased by parathyroid extract, epinephrine and extract of the posterior lobe of the hypophysis, and is uninfluenced by extracts of the gonads, corpus luteum and the anterior lobe of the hypophysis. Clinical anaphylactic sensitiveness and idiosyncratic symptoms are increased in hyperthyroidism and exophthalmic goiter, and under insulin and thymus treatment; are decreased by epinephrine, by extracts of the parathyroids and the posterior lobe of the hypophysis, and in myxedema; and are uninfluenced by extracts of the anterior lobe of the hypophysis. Change in the function of the female sex glands may condition either increased or decreased clinical anaphylactic sensitiveness.

Effect of Posterior Pituitary on Circulation.—It is stated by Vincent and Curtis that extracts of fresh posterior lobe of the pituitary do not produce a fall of blood pressure as a result of second or subsequent doses in dogs, cats and rabbits under ether or chloral with dextrose anesthesia, with or without morphine, atropine and curare. Under these conditions, extracts of dried posterior lobe, on the other hand, ultimately produce a pure depressor effect, owing to contaminating depressor bodies, the contrast between first and second injections being especially marked when morphine and curare are administered to the animal. The injections should be given at such a rate that equal volumes of saline solutions injected at the same rate will not produce a fall of blood pressure.

Cardaissin.—A new compound has been extracted by Cameron from the suprarenal glands of cattle to which he gives the name cardaissin. It has been found to increase the heart rate. It does not affect any other organ than the heart, with the possible exception of the suprarenal glands. It accelerates the rate of the isolated heart of a guinea-pig as much as 120 beats for forty-five minutes. When injected subcutaneously, it increases the heart rate of various normal mammals for long periods of time.

Rôle of Pancreas in Tuberculosis.—Robinovitch and Stiles believe that the defensive agent of the pancreas against tuberculosis seemed to be the lipase of the pancreas.

Journal of Industrial Hygiene, Baltimore

9: 77-108 (March) 1927

Flatfoot and Extension Boot Heel. H. R. Conn, Akron, Ohio.—p. 77.

*Vaccine Treatment to Prevent Colds. S. J. Repplier and W. G. Leaman, Jr., Philadelphia.—p. 85.

*Metal Fume Fever Following Experimental Inhalation of Zinc Oxide. C. C. Sturgis, P. Drinker and R. M. Thomson, Boston.—p. 88.

*Id.: II. Resistance Acquired by Inhalation of Zinc Oxide. P. Drinker, R. M. Thomson and J. L. Finn, Boston.—p. 98.

Preventing Colds by Vaccine Therapy.—Accurate follow-up data by Repplier and Leaman of 125 patients inoculated in the fall of 1925 with a stock respiratory vaccine, when examination had demonstrated the absence of nose and throat infection, shows thirty-eight, or 30.4 per cent of the series, completely successful, with an additional sixty-six, or 52.8 per cent, demonstrating markedly increased resistance to upper respiratory involvement for a period of one year. Reaction, either local or general, to the inoculations seems to be followed by a higher degree of immunity.

Experimental Metal Fume Fever.—Two cases of metal fume fever following experimental inhalations of freshly generated zinc oxide are described by Sturgis et al. The subjects were observed clinically for fifty-two hours after their exposure. Typical febrile reactions occurred, and a marked leukocytosis followed the course of the fever and persisted for some twelve hours after the body temperatures had returned to normal. The vital capacities diminished as the temperatures increased; in one subject, the maximum diminution was 53 per cent, in the other, 18 per cent. In both cases, this subnormality persisted for about fifteen hours after the fever had subsided. Changes in blood pressure were found not to be significant; roentgen-ray examination of the lungs and analyses of the urine were negative.

Resistance Acquired by Inhalation of Zinc Oxide.—Resistance acquired by inhalation of zinc oxide fume on successive days is reported by Drinker et al. in two typical cases. In the first case, the subject was exposed to air containing a concentration of about 52 mg. of zinc per cubic meter of air and the next day was resistant to a three-hour exposure in air containing 330 mg. of zinc per cubic meter. In the second case, another subject inhaled 23 mg. of zinc (as zinc oxide), and as a result developed a fever of 101.2 F. (38.4 C.). A second inhalation of 33 mg. of zinc under like conditions but in a heavier fume concentration caused a slight malaise, and raised the body temperature to a maximum of 99.5, where it remained for about eight hours. It is estimated from former experiments on this subject that, without acquired resistance, the temperature would have risen to about 102.5 F. (39.2 C.). A pronounced leukocytosis was caused by the first inhalation and, while the white blood cell count was still high (16,000), the second inhalation took place. The count then remained at more than 10,000 for the next twenty-seven hours On the day after their first inhalations of zinc oxide, both subjects experienced the weakness and debilitation that follow typical attacks On the day after their second exposures, both were free of these symptoms and felt themselves to be in normal health

Laryngoscope, St. Louis

37: 157 234 (March) 1927

Facial Reconstructive Surgery J Maliniak, New York —p 157
*Ear, Nose and Throat Findings of Nine Thousand Seven Hundred and Fifty One Students P S Stout, Philadelphia —p 170
Testing Hearing with Spoken Voice D Nussbaum, Philadelphia —p 176
* Hearing" by Touch R H Gault, Northampton, Mass —p 184
Treatment of Chronic Progressive Middle Ear Deafness L W Oaks and H G Merrill, Provo, Utah —p 190
Chronic Progressive Deafness R E Parrish, Washington, D C —p 198
Otitic Meningitis and Brain Abscess V K Hart, Statesville N C —p 208
Uses of Ephedrine in Rhinology C C Merkel, Iowa City —p 212
*Tobacco, Alcohol and Cosmetics in Relation to Upper Respiratory Tract W Freudenthal, New York —p 217
Temporosphenoidal Abscess with Word Deafness, Hemiplegia and Hemianopsia J D Whitham, New York —p 231

Rhinolaryngologic Examination of Students—Since 1920, the freshmen entering the University of Pennsylvania have been examined physically by ten medical men Of 2,079 students entering in 1925, 13 per cent had diseased tonsils, 9 per cent had enlarged tonsils, 16 per cent had defective hearing, 4 per cent had defective vision and 5 per cent had obstructed nostrils

Hearing by Touch.—Gault discusses a method of lip-touch hearing in which the subject holds in his hand a telephone receiver, the thumb being placed on the diaphragm Particulars are not given

Tobacco, Alcohol and Cosmetics in Relation to Respiratory Tract.—From a medical or rather laryngeal point of view, Freudenthal sees no reason why anybody should give up tobacco or alcohol, if it does no harm to him The use of either one of them or both in moderation by millions of people is proof enough of its harmlessness, in fact, in many instances, it has a beneficial effect on the human organism The abuse of tobacco and alcohol has been and always will be condemned From the use of cosmetics, Freudenthal has not seen any good at all They are condemned from every point of view

Maine Medical Association Journal, Portland

18: 39 60 (March) 1927

Example of Way Maine's "Health Plan" Actually Functions F Y Gilbert —p 39

Nebraska State Medical Journal, Norfolk

12: 81 120 (March) 1927

Goiter B B Davis, Omaha —p 81
Herpes Simplex S R Gifford, Omaha —p 87
Fracture Treatment C G McMahon, Superior —p 91
Mechanism of Presenting Symptoms in Pulmonary Tuberculosis M J Breuer, Lincoln —p 94
Surgical Pitfalls J E Summers, Omaha —p 98
Obstetric Pitfalls P Findley, Omaha —p 100
Treatment of Bone and Joint Infections of Fingers H W Orr, Lincoln —p 104
Who Should Refract? J M Patton, Omaha —p 105
Acute Panophthalmitis Case D D Sanderson, Lincoln —p 109
Gangrene of Lung Case C H Waters, Omaha —p 110

New York State Journal of Medicine, New York

27 219 275 (March 1) 1927

Accidental Hemorrhage Thirty Four Cases G L Brodhead New York —p 219
Diseases of Thyroid A S Jackson, Madison, Wis —p 225
Prenatal Care A B Davis New York —p 235
Migraine E F Hartung, New York —p 240
Plea for Better Reporting of Tuberculosis Cases R E Plunkett, Albany —p 243

Philippine Islands Medical Association Journal, Manila

7: 27 68 (Feb) 1927

Lightening White Man's Burden C Reyes, Manila —p 27
Standardization of Digitalis F Garcia, R Guevara and J E Jimenez, Manila —p 41

Southwestern Medicine, Phoenix, Ariz.

11: 55 110 (Feb) 1927

Problem of Coronary Sclerosis G Werley, El Paso, Texas —p 55
Size of Heart as Index of Cardiac Efficiency O H Brown Phoenix —p 57
Diarrheal Diseases in New Mexico J G Wilson El Paso Texas —p 61
Report on Two Hundred Cases of Acute Appendicitis W W Watkins, Phoenix —p 65
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Surgery, Gynecology and Obstetrics, Chicago

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Nephrolithiasis Seventy One Cases D N Eisendrath, Chicago —p 317
*Experimental Studies in Pulmonary Suppuration E Holman, L R Chandler and C L Cooley, San Francisco —p 328
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*Incidence of Carcinoma of Uterus Among Jewish Women A Horwitz, Rochester, Minn —p 355
*Compression of Duodenum by Mesentery and Superior Mesenteric Vessels Cause of Acute Gastric Dilatation L H Slocumb, St Louis —p 359
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*Aseptic Method of Entero Anastomosis C A Perret, Berne, Switzerland —p 378
*Effect of Acute Perforation on Course of Peptic Ulcer A McGlannan and H F Bongardt Baltimore —p 390
*Internal Drainage of Gallbladder Routine Procedure W A Steel, Philadelphia —p 393
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Primary Thyroidectomy for Exophthalmic Goiter A S Jackson, Madison, Wis —p 406
*Effect of Sterilization on Horsehair J E Schaefer, St Louis —p 411

Phlegmonous Gastritis.—Two cases of phlegmonous gastritis are reported by Meyer, Brams and Guy to emphasize the fact that this condition is not rare The clinical picture combines the features of the so called acute surgical abdomen with the phenomena of generalized sepsis

Neurofibromatosis and Fibromyxosarcoma of Stomach.—A case of multiple neurofibromatosis associated with an intra-abdominal sarcoma is reported by Hartman This presumably arose in a neurofibroma of the stomach wall The presence of a rapidly growing intra-abdominal tumor associated with von Recklinghausen's disease should, therefore, suggest the possibility of sarcomatous degeneration of a previously benign neurofibroma

Pulmonary Suppuration.—Tuberculous emboli introduced by Holman, Chandler and Cooley into the jugular vein were arrested in the pulmonary circulatory bed, where they initiated pathologic changes in the pulmonary tissue resulting successively in anemia, infarction, caseation, central softening and abscess formation The earliest appearance of a well defined abscess following the introduction of the tuberculous embolus was on the twelfth day, whereas pyogenic emboli produced abscesses within four and six days A relative lymphocytosis accompanied the tuberculous processes in the lungs, as contrasted with a true polymorpholeukocytosis that characterized the pyogenic processes. The embolus, as such, produced only slight changes in the pulse and the respiratory rates. Positive blood cultures were obtained in a number of instances as early as twenty-four hours following the introduction of pyogenic emboli. Good healing of the bronchial stump occurred in every instance following an atraumatic inversion of the stump by sutures placed in the peribronchial tissues.

Incidence of Carcinoma of Uterus in Jewish Women.—Of 1,237 cases of primary carcinoma of the uterus seen at the Mayo Clinic between 1920 and 1925, inclusive, 1,227 were among Gentiles and ten were among Jewesses. From data obtained by Horwitz at the Curie Hospital, where two thirds of the patients were treated for carcinoma by roentgen rays or radium the incidence of carcinoma was slightly less for the Jewish patients (62 per cent), as compared with carcinoma in the Gentiles (66 per cent). Carcinoma of the uterus is comparatively infrequent among Jewesses, being about one fourth as frequent as in the Gentile women (3.9 per cent as compared with 16.5 per cent). Carcinoma of the breast in the female is common among Jewesses and almost equals the percentage in Gentile women the incidence being 26.4 per cent and 28.3 per cent respectively. Carcinoma of the digestive tract including the liver and pancreas was almost twice as frequent in the Jew as in the Gentile, being 30.2 per cent and 17.1 per cent respectively.

Cause of Acute Gastric Dilatation.—Slocumb agrees with other observers that acute dilatation of the stomach comes about as the result of compression of the third portion of the duodenum by the mesentery and the superior mesenteric vessels. It never occurs unless there is first present atony of the duodenum. It occurs in its milder form quite frequently and usually goes unrecognized. Any patient who has been subjected to shock should not be allowed to remain face upward in bed for any considerable length of time. Preoperative purgation and postoperative administration of morphine are to be avoided as much as possible. If surgical measures become necessary duodenojejunostomy is anatomically and physiologically the operation of choice.

Treatment of Uterine Myoma.—According to Henkel nothing has set back the scientific investigation of uterine myoma and its correct treatment so much as the fact that up to the present time morbid anatomy has occupied so prominent a place in the study of the condition and, secondly, the fact that roentgen ray therapy is so extensively used in its treatment. Pathologic anatomy does not permit the abandoning of the idea that a myoma is a local disease of the uterus, and roentgen ray therapy, through its often uncritical application and the prejudiced view of the surgeons, has been a great obstacle in that the proper treatment has not always been chosen for the individual case. This may explain the fact that at the present time no reliable data concerning the origin and correlations of uterine myoma are available.

New Method of Entero-Anastomosis.—Perret has devised a method of entero-anastomosis which makes it possible to join two loops of intestine, or a loop of intestine and the stomach, without opening the lumen of either viscus.

Effect of Perforation on Peptic Ulcer.—McGlannan and Bongardt conclude that after recovery from acute perforation of a peptic ulcer, the majority of patients go on to permanent cure of *the ulcer, a few are not completely cured, but do* recover sufficiently to lead a comfortable and active life, a very small minority have recurrence or persistence of the ulcer symptoms, and some will require secondary operations for their cure.

Internal Drainage of Gallbladder.—Steel asserts that internal drainage of the gallbladder (cholecystoduodenostomy or cholecystogastrostomy) results in a lower mortality than cholecystectomy and accomplishes the same purpose. Cholecystitis does not recur as it often does after cholecystectomy. Internal drainage eliminates common duct surgery. For these reasons, it is the operation of choice in cases of infected gallbladder. It is contraindicated in acute or subacute pancreatitis.

Effect of Sterilization on Horsehair.—Various methods usually employed to sterilize horsehair were tested by Schaefer. Autoclaving was shown to be the least injurious to the horsehair. It does not appreciably affect the tensile strength of the hair.

Tennessee State Medical Association Journal, Nashville

19: 207-235 (Dec.) 1926

Polycystic Kidney. M. G. Spingarn, Memphis.—p. 207.
Traumatic Rupture of Kidney. E. R. Campbell, Chattanooga.—p. 209.
Milk Injections in Treatment of Infections of Female Genital Tract. R. S. Duke, Nashville.—p. 213.
Neurologic Complications of Mastoid Disease. F. E. Hasty, Nashville.—p. 216.
Migraine. L. C. Sanders, Memphis.—p. 221.
Electrocoagulation of Tonsils. L. Goyer, Jackson.—p. 225.
Twilight Sleep: Three Hundred and Fifty Cases. S. Meeker, Memphis.—p. 229.

19: 237-270 (Jan.) 1927

Treatment of Corneal Ulcers. L. M. Scott, Jellico.—p. 237.
Cycloplegic's Complications. E. C. Ellett, Memphis.—p. 242.
Syphilis. J. Y. Alexander, Middleton.—p. 247.
Conservation of New Born. J. C. Ayres, Memphis.—p. 250.
Empyema. L. B. West, Chattanooga.—p. 254.
Symptoms Indicating Nasal Sinus Surgery. T. I. Davis, Chattanooga.—p. 257.
Traumatic Shock. J. C. Burch, Nashville.—p. 263.

U. S. Veterans' Bureau Med. Bull., Washington, D. C.

3: 197-291 (March) 1927

Administration of Medical Service, Regional Offices. G. C. Skinner.—p. 197.
Value of Periodic Inspection in Hospitals. J. E. Dedman.—p. 201.
Physical Exercise as Therapeutic Measure. F. A. Davis.—p. 204.
Parkinsonian Syndrome, Following Epidemic Encephalitis. E. J. Rose.—p. 210.
Residua of Epidemic Encephalitis Among Negro Veterans. T. T. Tildon.—p. 214.
Differentiation of Etiologic Factors in Parkinsonian States of Epidemic Encephalitis and Syphilis. J. A. Nelson.—p. 218.
*Home Treatment in Pulmonary Tuberculosis. C. J. Stevens.—p. 223.
*Smallpox Vaccination and Pulmonary Tuberculosis. F. W. Schwarz.—p. 226.
Iodized Oil: Contraindications. A. Blumberg.—p. 228.
Book Therapy in Veterans' Hospitals. E. Pomeroy.—p. 231.
*Unusual Tumor Involving Hypophysis and Gasserian Ganglion. R. L. Benson.—p. 236.
Case of Rapidly Advancing Tuberculosis. A. J. Bondurant.—p. 241.
Functions of Liver and Their Appraisal. W. D. Fleming.—p. 266.
Plea for Humanizing Hospitals. T. L. Pedersen.—p. 269.

Home Treatment of Tuberculosis.—Stevens stresses the fact that hospitalization is essential for all active cases of pulmonary tuberculosis, as an efficient continuous treatment can only rarely be provided patients on outpatient relief status. Home treatment, in most instances, is difficult to put in application, unsatisfactory as to the results obtained and unless granted in carefully selected cases, is a decided break in the continuity of treatment.

Smallpox Vaccination and Pulmonary Tuberculosis.—On the basis of an experience with forty-five cases of tuberculosis, Schwarz believes that a person suffering from pulmonary tuberculosis of any stage may be vaccinated against smallpox with impunity.

Tumor of Hypophysis and Gasserian Ganglion.—Benson records the case of a man who had suffered from infection of the right ear for about five years, preceded by a history of previous tonsillar hypertrophy. Mastoid and inner ear infection, with extension to the petrous portion of the temporal bone, had been present for a considerable period of time. A terminal meningitis was due to an extension through the periosteum at an undetermined point. At the necropsy there was found a malignant tumor which occurred coincidently with the infectious process, probably of embryonal origin, possibly in an anlage of the pars intermedia of the hypophysis. The resemblance of this tumor to pars intermedia tissue was striking. It was impossible to state which was the antecedent condition, the neoplasm or the infection, but the presumption was strongly in favor of the former. One process or the other, or both, involved the right middle ear, right inner ear, and facial canal, the gasserian ganglion of the fifth cranial nerve, the hypophysis to a slight extent, and the first and second cranial nerves.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

Archives of Disease in Childhood, London

2: 1-70 (Feb.) 1927

*Bone Changes Occurring in Renal and Celiac Infantilism; Relationship to Rickets: I. Renal Rickets. L. G. Parsons.—p. 1.
*Infantile Factor in Failure of Breast Feeding. H. St. Vertue.—p. 26.
*Cholemia: Nervous Symptoms in Liver Atrophy. J. C. Spence and A. G. Ogilvie.—p. 41.
*Use of Banana Pulp in Feeding of Marasmic Infants. H. Thursfield.—p. 49.
Ketonemia, Cyclical Vomiting and Some Nervous Disturbances in Children. H. C. Cameron.—p. 55.
*Acute Rheumatism. F. J. Poynton.—p. 62.

Bone Changes of Renal Infantilism.—The clinical characteristics, and the chemical and roentgenographic observations in five hitherto unpublished cases of renal infantilism with bone changes are discussed by Parsons, and an attempt is made to classify the bone changes and to explain their pathogenesis. Evidence is submitted that the bone deformities are rachitic in nature, but the author has not been able to produce a cure in renal rickets by ultraviolet irradiation, whereas in celiac rickets such treatment results in cure. The explanation of these results is probably to be found in the fact that ultraviolet rays raise the blood phosphorus by increasing phosphorus absorption, and therefore treatment by this method makes the disparity between the calcium and phosphorus even more marked. Parsons thinks the tendency is very definitely to make the disease worse. The factors necessary for the prevention of rickets are usually stated to be an adequate supply of calcium, phosphorus and vitamin D in the dietary. Renal rickets develops and persists in spite of an adequate supply of all these factors, and hence the suggestion of Shipley that under certain conditions rickets may have an endogenous origin appears to be incontrovertible. The bone deformities of renal infantilism are those of true low-calcium rickets. The roentgenograms show that a case of renal infantilism may develop bone changes of one of three types: (*a*) atrophic rickets; (*b*) florid rickets; (*c*) woolly rickets. The primary cause of renal rickets is the inability of the kidney properly to excrete phosphate; i. e., a true endogenous rickets exists. The blood shows marked lipemia, nitrogenous and phosphate retention and an acidosis. Blood calcium, while low compared with blood phosphorus, frequently shows normal values, in contradistinction to what usually obtains in azotemic nephritis and after the injection of phosphate. The suggestion is made that this is due to mobilization of calcium from the bones as a preventive mechanism against tetany. Healing of rickets may occur in those periods in which phosphorus excretion improves materially, or when the growth period is over.

Causes of Failure of Lactation.—A true failure of lactation is regarded by St. Vertue as being a relatively uncommon event. It occurs in less than half of all cases seen. It is due to abnormality or disease in either mother or child. Disease of the child is the more important of the two causes of true failure. It occurs in the first few weeks of life. Interference with the suction stimulus is the important basis of the failure of lactation. Disease of the suction apparatus is therefore the usual underlying cause, either in the child's mouth, or his nose or respiratory system, or in the nipple or breast itself. Maternal ill health is a much less effective cause of true failure of lactation. It is widely stressed in books; it is obtrusively advertised on the hoarding by the proprietors of patent foods, and it is firmly believed in by the mothers themselves. But in reality it is rare. Nervous unrest is a very common cause of failure. Practically half the cases of failure to breast feed are not due to a failure of the function at all, but simply to mismanagement or to the interference of some outside influence.

Nervous Symptoms in Liver Atrophy.—Twenty-one cases of liver atrophy are analyzed by Spence and Ogilvie. Five were in children aged 14 or less. These were traced from a total number of 4,958 postmortem examinations in a period of thirteen years, and thus represent only the fatal cases which occurred in this time. The pathologic changes in the liver in these cases were, in one case, acute atrophy (acute yellow atrophy) and in twenty cases, subacute yellow atrophy. In all five cases in children, and in eleven of the adult cases, a certain sequence of nervous symptoms characterized the terminal or "cholemic" stage. This was more evident in the children than in the adults and consisted of lethargy or stupor, and a period of unusual shrieking and wailing which the authors term "cholemic crying." It was not present in all cases, but when it occurred it was distinctive, differing from mere toxic delirium. Jaundice was present in all cases but varied greatly in degree. In four of the cases of the subacute type with ascites and jaundice, the acute cholemic stage was precipitated by tapping the abdomen to relieve abdominal discomfort. A terminal pyrexia was noted in five cases, in only two of which there was bronchopneumonia. In six cases there was evidence of syphilis and treatment by arsphenamine, and in one other case, evidence of congenital syphilis without treatment by arsphenamine. The clinical picture of the cholemic stage in this group did not differ from that of the other cases.

Feeding Banana Pulp to Marasmic Infants.—An account is given by Thursfield of a method of feeding "difficult" infants with banana pulp. It is said that by this method progress is secured in many cases which is superior to that obtained by other methods. It is suggested that the benefit is due not to any known peculiarity of the banana as a food, but possibly to some unidentified element in the banana.

Acute Rheumatism; Unusual Manifestations.—Six cases are reported by Poynton. In one case the prominent feature was the occurrence of many nodules without any grave disease. In another case, the attack of acute rheumatism was initiated by an acute heart block. In a third case, enlargement of the thyroid was coincident with a severe cardiac rheumatism. In three cases there was dumbness with the chorea. All these three children were excitable and intelligent even for rheumatic children.

British Journal of Experimental Pathology, London

8: 1-92 (Feb.) 1927

*Measuring Population of Hemolytic Streptococci in Blood. E. W. Todd.—p. 1.
*Separation of Virulent Cultures of B. Diphtheriae into Virulent and Avirulent Types. M. L. Cowan.—p. 6.
*Rôle of Reticulo-Endothelial System of Cutis in Experimental Vaccinia and Other Infections. J. C. G. Ledingham.—p. 12.
*Unexplained Difficulties Met with in Cultivating Gonococcus: Part Played by Amino-Acids. J. W. McLeod, B. Wheatley and H. V. Phelon.—p. 25.
Experiments on Streptococcal Hemolysin and Antagonistic Action of Bile and Bile-Salts. J. Gordon.—p. 38.
*Excitation of Bactericidal Fluorescence by Means of Roentgen Rays. P. R. Peacock and L. E. H. Whitby.—p. 43.
Wright's Centrifuge Method of Estimating Phagocytosis and Rate of Opsonization of Bacteria by Normal Serum. A. Fleming.—p. 50.
*Inhibition of Insulin Action by Toxemias: I. Effect of Diphtheria Toxin on Blood Sugar and Insulin Action in Rabbits. R. D. Lawrence and O. B. Buckley.—p. 58.
*Simultaneous Determinations of Arterial and Venous Blood Sugars in Diabetic Individuals. I. M. Rabinowitch.—p. 70.
*Proteins of Cerebrospinal Fluid. L. F. Hewitt.—p. 84.

Enumerating Streptococci in Blood.—A method has been devised by Todd for measuring changes of streptococcal population in defibrinated blood under conditions that favor the bactericidal action of leukocytes. Continued movement of the defibrinated blood during incubation results in a very great increase in the bactericidal effect exerted. This increase in bactericidal action is associated with a greatly increased intake of streptococci on the part of the leukocytes.

Experimenting with Virulence of B. Diphtheriae.—The indications from the experiments recorded by Cowan are all in the same direction; from a virulent culture of *Bacillus diphtheriae* can be separated an avirulent, nontoxin producing type which ferments dextrose and maltose but not saccharose, and which, from its resemblance in cultural and morphologic characteristics and lack of virulence to the "R" type of streptococci, has been designated the "R" type of *B. diphtheriae*.

Rôle of Reticulo-Endothelial System of Skin.—Ledingham's experimental results and histologic observations lend strong support to the view that the primary attack of the vaccine virus is on the reticulo-endothelial system and not on the epidermal elements, as most of the older writers and some contemporary workers, notably Levaditi and Nicolau, have alleged. He has also noted that the intracutaneous response to vaccinia in the rabbit is entirely modified in degree and character or completely abolished if the virus is inoculated in conjunction with india ink of sufficient concentration. If a dermal site is infiltrated with ink, and virus is subsequently superposed on the same site, a naked-eye response may not follow. Indications have been obtained that infiltration of dermis with other material, e. g., *Streptococcus erysipelatis*, may also modify the reaction to a subsequently superposed virus. The mechanism of the inhibition is discussed, and particular stress laid on the action of ink in stimulating the local reticulo-endothelial system to proliferate, and thus enhancing the defense forces of the part.

Growing the Gonococcus.—The elements which McLeod et al. regard as essential to the growth of the gonococcus appear to be: (1) some source of aminonitrogen and of carbon; (2) salts such as are present in meat extract, and (3) a colloid that is capable of protecting the organism from undue concentrations of certain amino-acids and of enabling it to assimilate these and others. Blood heated between 60 and 100 C. has proved itself far superior to other colloids tried in this respect. A mixture of amino-acids, in which no single one is present in an inhibitory amount, produces inhibition of growth owing to summation of inhibitory effects, and in any case the gonococcus appears to be unable to utilize aminonitrogen unless a certain ratio of blood, or equivalent colloid, to aminonitrogen is maintained. The failure of the gonococcus to grow on ordinary nutrient agar would, in view of this conclusion, depend on an unduly low ratio of suitable colloid to aminonitrogen.

Excitation of Bactericidal Fluorescence.—These experiments reported on by Peacock and Whitby appear conclusive enough to justify a claim that bactericidal fluorescence is a possible therapeutic measure, and that though calcium phosphotungstate is far from being an ideal substance, yet its employment in superficial lesions may be found to be useful and practicable. Calcium phosphotungstate is a soluble substance emitting bactericidal wave lengths when excited by roentgen rays; it can be used subcutaneously in animals for bactericidal purposes.

Inhibition of Insulin Action by Toxemias.—A condition has been produced by Lawrence and Buckley in rabbits with diphtheria toxin in which (*a*) insulin action is reduced or absent; (*b*) a prelethal rise in blood sugar occurs, which has been reduced by ergotamine (femergin) and is therefore due to glycogenolysis, and (*c*) striking histologic changes have been found in the thyroid and suprarenal. The effect of toxemias and infections on these glands ("the thyroid-suprarenal apparatus") is discussed, and it appears that these glands are always stimulated by toxemias. It is suggested that the overactivity of these two glands, both physiologic antagonists to insulin, is the cause of the failure of insulin action during infections in diabetes. The effect of infections on the blood sugar in nondiabetes is also discussed. A number of insulin-resistant cases of diabetes, other than infected ones, are analyzed and most are clearly found to be complicated by an overactive thyroid or suprarenal. This theory of the overactivity and antagonism of the thyroid and suprarenal to insulin action during infections is discussed in its therapeutic aspects.

Determination of Arterial and Venous Blood Sugar.—Arterial and venous blood sugars do not parallel each other following glucose ingestion which, Rabinowitch says, may explain some of the discrepancies between the results of different workers in studying the renal threshold for sugar. It may also explain the fact frequently noted that many individuals, though not having typical renal glycosuria, have glycosuria following ingestion of glucose with no apparent hyperglycemia. Rabinowitch has found that the rates of glycolysis of diabetic bloods were less in venous than arterial specimens. The immediate practical application of arterial and venous blood sugar studies appears to be in the diagnosis and differentiation of the various types of diabetes, and results obtained along these lines are recorded.

Determination of Total Proteins in Cerebrospinal Fluid.—A colorimetric method of the determination of total protein content and that of the various protein fractions of cerebrospinal fluids is described by Hewitt. In normal fluid there is about 0.02 per cent albumin and about 0.003 per cent globulin, of which by far the greater part is pseudoglobulin. In pathologic fluids both albumin and globulin increase in quantity, and generally the globulin more in proportion. In fourteen normal and pathologic fluids the average ratio of albumin to globulin was 6:1; in three tabetic fluids the ratio was 3:1, and in sixteen general paralytic fluids it was 1.3:1. The significance of these differences is discussed.

British Journal of Radiology, London

32: 41-80 (Feb.) 1927

Roentgen-Ray Diagnosis of Pathologic Conditions of Gallbladder. J. F. Brailsford.—p. 41. (To be continued.)
Early Change in Nucleus of Cells of Tumors Following Exposure to β Radiation. J. C. Mottram.—p. 61.
Roentgenotherapy of 100 Cases of Exophthalmic Goiter. M. R. J. Hayes.—p. 64.
Training of Doctors for Roentgenology. G. Holszknecht.—p. 69.

British Medical Journal, London

1: 363-410 (Feb. 26) 1927

High Blood Pressure, Albuminuria, and Glycosuria in Relation to Life Insurance. G. L. Gulland.—p. 363.
*Mule Spinners' Cancer. A. H. Southam.—p. 366.
Acute Pancreatitis. H. Bailey.—p. 367.
*Arrest of Hemorrhage After Prostatectomy. R. O. Ward.—p. 370.
Aids to Palatal Sufficiency After Cleft Palate Operations. R. Woods.—p. 371.
*Right Branch Bundle Block. W. S. Malcolm.—p. 372.
*Tuberculosis and Milk. N. Raw.—p. 373.
Treatment of Tuberculosis: Colloidal Antimony. P. Moxey.—p. 374.
Treatment of Varicose Veins by Organic Arsenic Injections. W. M. Borcherds.—p. 375.
Aftertreatment of Mastoid Operations. A. J. Wright.—p. 375.
Pseudomucinous Cystadenoma of Ovary. R. R. Foote.—p. 375.

Mule Spinners' Cancer.—It is only within a very recent period that cancer of the scrotum and skin has come to be recognized as being associated with the occupation of mule spinning in cotton mills. Southam found recorded in government officers 667 cases, 570 in spinners and ninety-seven in ex-spinners who passed into other employment. Susceptibility to the irritant effects of mineral oil is said to be important in the etiology of this tumor.

Arresting Hemorrhage After Prostatectomy. — Ward describes a bag and clamp arrangement of his devising which is said to prevent hemorrhage after prostatectomy. The bag is slightly modified from Pilcher's pattern, and is mounted on part of a special clamp, one arm of which descends into the bladder; counterpressure is obtained by another part of the instrument ending in a small plate, which supports the area around the central point of the perineum. In this way two fixed points are obtained, and between them the rubber bag is held and there distended to the necessary amount. When once in position it is secure, and does not get out of place if the patient moves about and turns on to his side, or even on to his face.

Right Branch Bundle Block.—Three cases are reported by Malcolm. Two were in males. All had reached the degenerate period of life, with thickened arteries and high systolic and diastolic readings, and with symptoms indicative of cardiac insufficiency. The associated cardiac lesions were mitral, aortic (Wassermann reaction positive) and hypertrophic (with renal cirrhosis), the common factor being myocardial with degenerative arterial change.

Tuberculosis and Milk.—Raw is of the opinion that it is possible to immunize cattle against ordinary infection by using killed cultures of attenuated human tubercle bacilli, in precisely the same way that immunity can be given to man against ordinary infection of typhoid and paratyphoid by using dead cultures of typhoid bacilli.

1: 411-450 (March 5) 1927

Gastric Hemorrhage. C. Miller.—p. 411.
*Physiology of Monotony. R. J. S. McDowall and H. M. Wells.—p. 414.
*Carbon Monoxide Poisoning; Medicolegal Importance. D. J. A. Kerr.—p. 415.
*Bilharzia Ova and Test Tube. J. B. Christopherson.—p. 418.
*Oscillometric Examination of Arterial Permeability. A. P. Cawadias.—p. 419.
*Treatment of Burns. D. Mackenzie.—p. 421.
Treatment of Lethargic Encephalitis Associated with Parkinsonism by *Ultraviolet Rays.* R. Faucitt.—p. 422.
Breathing Exercises with Moving Arms. H. Hill.—p. 422.
Coincident Herpes and Varicella. E. E. Ouseley-Smith and G. Williamson.—p. 423.
*Hereditary Hemorrhagic Telangiectasia. E. C. Mekie.—p. 423.
Pulmonary Embolism Following Childbirth. P. Henderson.—p. 423.
Excision of Protruding Portions of Liver. C. R. H. Tichborne.—p. 423.

Physiology of Monotony.—McDowall and Wells regard monotony as being an increasing important industrial problem. It is emphasized that a vascular reaction may be brought about by any form of stimulation or effort, actual or anticipated, provided the stimulus is not too often repeated. As soon as the stimulation or effort becomes monotonous, the vascular reactions are no longer obtained.

Carbon Monoxide Poisoning.—A study made by Kerr of the statistics of suicide in a large city has brought out many interesting facts. Among these are the changing methods adopted by persons who commit suicide. In former years the most frequent methods were hanging, drowning and cutthroat. Today the same methods, while still very common, no longer hold the first place, having given way to poisoning. The most frequent poison employed is carbon monoxide or coal gas, and in Scotland not only is it the most frequent poison but the most common of all methods of suicide. Indeed, the frequency of suicidal coal gas poisoning has become a question which demands serious consideration.

Effect of Antimony on Bilharzia Ova.—Christopherson asserts that in vitro experiments prove the direct toxic effect of antimony on the ova of bilharzia. They further suggest that the phenomenon of hatching of the bilharzia ova is a vital process, not governed exclusively by physical laws, for whereas antimony appears to have a profound effect on the live ovum, it apparently has no effect on the dead ovum. The action on the ova and on the adult parasite makes antimony the most valuable therapeutic agent in bilharziasis, and probably one of the most complete remedies in the therapeutic armamentarium.

Determination of Arterial Permeability.—The oscillometric examination of arterial permeability, Cawadias says, helps in determining whether obliteration exists, and thus in diagnosing whether a syndrome of intermittent claudication is due to an arterial obliteration or to a nervous cause (medullary intermittent claudication, a syndrome of the initial period of Erb's spastic paraplegia). The oscillometric method allows the course of the disease and the effect of treatment to be followed, and also enables a diagnosis to be made between arterial obliteration due to spasm and that due to definite organic obstacles. Oscillometric exploration allows the localization of the obliteration to be determined, the obturation curve being found precisely at the region of the obturation and under that region. Oscillometric estimations have been applied to the examination of the arterial circulation in cases of arterial and arteriovenous aneurysm by Cawadias. This method also shows whether a collateral circulation persists in a limb after extirpation of an arterial aneurysm, and will demonstrate the obliteration of a radial artery by an aortic aneurysm or by a tumor of the mediastinum. The involved artery will show the oscillometric curve of arterial obstruction.

Treatment of Burns.—The line of treatment advocated by Mackenzie is active surgical intervention, consisting in immediate removal of all dead tissues under a general anesthetic and the liberal use of Wright's hypertonic saline solution.

Hereditary Hemorrhagic Telangiectasia.—Mekie reports a case of an unusual hereditary condition of the venules and capillaries of the skin and mucous membranes. The man, aged 38, had advanced pulmonary tuberculosis. He gave a long history of recurring epistaxis. He had numerous telangiectases on the lips, which he stated had existed since he was about 15 years of age; they appeared one at a time, but all within two years of each other. Some years later similar spots appeared on the nose, cheeks, tongue, nasal septum, gums and soft palate. The spots were bright red and, except at certain times, were not palpable. They consisted of a cluster of dilated venules or capillaries, which lay immediately under the surface layer of the epithelium. The patient's grandfather, father, two of his uncles, one sister and three cousins had the same condition. The patient's seven children were not affected.

Journal of State Medicine, London

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Neotropical Species of Tongue Worms: Human Porocephaliasis in Tropical America. G. O. M. Giglioli.—p. 33.

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Importance of Personal Study of Molluscum Bodies in Water. J. J. Clarke.—p. 45.
Early Diagnosis of Kala-Azar. G. C. Low and E. G. Sayers.—p. 46.
Early Microscopic Diagnosis of Leptospirae (Weil's Disease), Yellow Fever and Others. D. W. Schüffner and G. Sieburgh.—p. 48.

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Surgery of Hernia. E. M. Cowell.—p. 478.
*Control of Scarlet Fever in Children's Hospital. D. McLean.—p. 483.
*Malarial Therapy in General Paralysis of Insane. J. P. Steel and J. E. Nicole.—p. 484.
*Nature of Thyrotoxic Myocarditis. J. S. Goodall and L. Rogers.—p. 486.
*Diabetes Insipidus in Lymphatic Leukemia of Aleukemic Type. J. H. Sheldon.—p. 489.
Multiple Aneurysms of Splenic Artery. J. A. Berry.—p. 490.
Cerebellar Abscess in Elderly Woman. W. S. Thacker-Neville.—p. 490.

Control of Scarlet Fever in Children's Hospital.—McLean reports good results in the control of scarlet fever from the use of the following procedure: (1) All the patients in the ward were given the Dick test as soon as was practicable. (2) The following day all Dick-positive children were given 5 cc. of scarlatinal antitoxic serum intramuscularly. (3) On the third day these positive children were retested, and if any were found to give a positive or doubtful reaction a further dose of serum was given. The procedure adopted in twenty-five wards containing from twenty to thirty patients suggests that the spread of the infection can be controlled. A second case of scarlet fever did not occur in any of the protected patients. No effects dangerous to the patient could be traced to the Dick test or serum injection, though, in a small minority of cases, the serum reaction was severe enough to cause pyrexia and some diarrhea extending over a few days.

Malaria Treatment of General Paralysis.—Although Steel and Nicole have not had as happy results with the malaria treatment of general paralysis of the insane as have been reported by other observers, they believe that it is distinctly worth while, as the patients become much more easily manageable. In fact, if the only improvement to be found was in their habits (which almost invariably become clean), the advantages accruing therefrom would be sufficient to warrant the work.

Thyrotoxic Myocarditis.—Goodall and Rogers assert that sustained thyrotoxicosis ultimately results in definite myocardial degeneration. A case in point is reported in detail.

Aleukemic Leukemia with Diabetes Insipidus.—A case of aleukemic leukemia is described by Sheldon in which there was general lymphocytic infiltration of the organs, but no typical blood changes. Death was preceded by a sudden attack of diabetes insipidus, with considerable daily variation in severity, and was associated with lymphocytic infiltration of the pituitary gland.

Rôle of Reticulo-Endothelial System of Skin.—Ledingham's experimental results and histologic observations lend strong support to the view that the primary attack of the vaccine virus is on the reticulo-endothelial system and not on the epidermal elements, as most of the older writers and some contemporary workers, notably Levaditi and Nicolau, have alleged. He has also noted that the intracutaneous response to vaccinia in the rabbit is entirely modified in degree and character or completely abolished if the virus is inoculated in conjunction with india ink of sufficient concentration. If a dermal site is infiltrated with ink, and virus is subsequently superposed on the same site, a naked-eye response may not follow. Indications have been obtained that infiltration of dermis with other material, e. g, *Streptococcus erysipelatis*. may also modify the reaction to a subsequently superposed virus. The mechanism of the inhibition is discussed, and particular stress laid on the action of ink in stimulating the local reticulo-endothelial system to proliferate, and thus enhancing the defense forces of the part.

Growing the Gonococcus.—The elements which McLeod et al. regard as essential to the growth of the gonococcus appear to be: (1) some source of aminonitrogen and of carbon; (2) salts such as are present in meat extract, and (3) a colloid that is capable of protecting the organism from undue concentrations of certain amino-acids and of enabling it to assimilate these and others Blood heated between 60 and 100 C. has proved itself far superior to other colloids tried in this respect. A mixture of amino-acids, in which no single one is present in an inhibitory amount, produces inhibition of growth owing to summation of inhibitory effects, and in any case the gonococcus appears to be unable to utilize aminonitrogen unless a certain ratio of blood, or equivalent colloid, to aminonitrogen is maintained. The failure of the gonococcus to grow on ordinary nutrient agar would, in view of this conclusion, depend on an unduly low ratio of suitable colloid to aminonitrogen.

Excitation of Bactericidal Fluorescence.—These experiments reported on by Peacock and Whitby appear conclusive enough to justify a claim that bactericidal fluorescence is a possible therapeutic measure, and that though calcium phosphotungstate is far from being an ideal substance, yet its employment in superficial lesions may be found to be useful and practicable. Calcium phosphotungstate is a soluble substance emitting bactericidal wave lengths when excited by roentgen rays; it can be used subcutaneously in animals for bactericidal purposes.

Inhibition of Insulin Action by Toxemias.—A condition has been produced by Lawrence and Buckley in rabbits with diphtheria toxin in which (*a*) insulin action is reduced or absent; (*b*) a prelethal rise in blood sugar occurs, which has been reduced by ergotamine (femergin) and is therefore due to glycogenolysis, and (*c*) striking histologic changes have been found in the thyroid and suprarenal. The effect of toxemias and infections on these glands ("the thyroid-suprarenal apparatus") is discussed, and it appears that these glands are always stimulated by toxemias. It is suggested that the overactivity of these two glands, both physiologic antagonists to insulin, is the cause of the failure of insulin action during infections in diabetes. The effect of infections on the blood sugar in nondiabetes is also discussed. A number of insulin-resistant cases of diabetes, other than infected ones, are analyzed and most are clearly found to be complicated by an overactive thyroid or suprarenal. This theory of the overactivity and antagonism of the thyroid and suprarenal to insulin action during infections is discussed in its therapeutic aspects.

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British Journal of Radiology, London

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Determination of Total Proteins in Cerebrospinal Fluid.—A colorimetric method of the determination of total protein content and that of the various protein fractions of cerebrospinal fluids is described by Hewitt. In normal fluid there is about 0.02 per cent albumin and about 0.003 per cent globulin, of which by far the greater part is pseudoglobulin. In pathologic fluids both albumin and globulin increase in quantity, and generally the globulin more in proportion. In fourteen normal and pathologic fluids the average ratio of albumin to globulin was 6:1; in three tabetic fluids the ratio was 3:1, and in sixteen general paralytic fluids it was 1.3:1. The significance of these differences is discussed.

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British Medical Journal, London

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High Blood Pressure, Albuminuria, and Glycosuria in Relation to Life Insurance. G. L. Gulland.—p. 363.
*Mule Spinners' Cancer. A. H. Southam.—p. 366.
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Mule Spinners' Cancer.—It is only within a very recent period that cancer of the scrotum and skin has come to be recognized as being associated with the occupation of mule spinning in cotton mills. Southam found recorded in government officers 667 cases, 570 in spinners and ninety-seven in ex-spinners who passed into other employment. Susceptibility to the irritant effects of mineral oil is said to be important in the etiology of this tumor.

Arresting Hemorrhage After Prostatectomy. — Ward describes a bag and clamp arrangement of his devising which is said to prevent hemorrhage after prostatectomy. The bag is slightly modified from Pilcher's pattern, and is mounted on part of a special clamp, one arm of which descends into the bladder; counterpressure is obtained by another part of the instrument ending in a small plate, which supports the area around the central point of the perineum. In this way two fixed points are obtained, and between them the rubber bag is held and there distended to the necessary amount. When once in position it is secure, and does not get out of place if the patient moves about and turns on to his side, or even on to his face.

Right Branch Bundle Block.—Three cases are reported by Malcolm. Two were in males. All had reached the degenerate period of life, with thickened arteries and high systolic and diastolic readings, and with symptoms indicative of cardiac insufficiency. The associated cardiac lesions were mitral, aortic (Wassermann reaction positive) and hypertrophic (with renal cirrhosis), the common factor being myocardial with degenerative arterial change.

Tuberculosis and Milk.—Raw is of the opinion that it is possible to immunize cattle against ordinary infection by using killed cultures of attenuated human tubercle bacilli, in precisely the same way that immunity can be given to man against ordinary infection of typhoid and paratyphoid by using dead cultures of typhoid bacilli.

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*Physiology of Monotony R J S McDowall and H M Wells —p 414.
*Carbon Monoxide Poisoning, Medicolegal Importance D J A Kerr —p 415
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Pulmonary Embolism Following Childbirth P Henderson —p 423
Excision of Protruding Portions of Liver C R H Tichborne —p 423

Physiology of Monotony.—McDowall and Wells regard monotony as being an increasing important industrial problem It is emphasized that a vascular reaction may be brought about by any form of stimulation or effort, actual or anticipated, provided the stimulus is not too often repeated As soon as the stimulation or effort becomes monotonous, the vascular reactions are no longer obtained

Carbon Monoxide Poisoning.—A study made by Kerr of the statistics of suicide in a large city has brought out many interesting facts Among these are the changing methods adopted by persons who commit suicide In former years the most frequent methods were hanging, drowning and cut-throat Today the same methods, while still very common, no longer hold the first place, having given way to poisoning The most frequent poison employed is carbon monoxide or coal gas, and in Scotland not only is it the most frequent poison but the most common of all methods of suicide Indeed, the frequency of suicidal coal gas poisoning has become a question which demands serious consideration

Effect of Antimony on Bilharzia Ova.—Christopherson asserts that in vitro experiments prove the direct toxic effect of antimony on the ova of bilharzia They further suggest that the phenomenon of hatching of the bilharzia ova is a vital process, not governed exclusively by physical laws, for whereas antimony appears to have a profound effect on the live ovum, it apparently has no effect on the dead ovum The action on the ova and on the adult parasite makes antimony the most valuable therapeutic agent in bilharziasis, and probably one of the most complete remedies in the therapeutic armamentarium

Determination of Arterial Permeability.—The oscillometric examination of arterial permeability, Cawadias says, helps in determining whether obliteration exists, and thus in diagnosing whether a syndrome of intermittent claudication is due to an arterial obliteration or to a nervous cause (medullary intermittent claudication, a syndrome of the initial period of Erb's spastic paraplegia) The oscillometric method allows the course of the disease and the effect of treatment to be followed, and also enables a diagnosis to be made between arterial obliteration due to spasm and that due to definite organic obstacles Oscillometric exploration allows the localization of the obliteration to be determined, the obturation curve being found precisely at the region of the obturation and under that region Oscillometric estimations have been applied to the examination of the arterial circulation in cases of arterial and arteriovenous aneurysm by Cawadias This method also shows whether a collateral circulation persists in a limb after extirpation of an arterial aneurysm, and will demonstrate the obliteration of a radial artery by an aortic aneurysm or by a tumor of the mediastinum The involved artery will show the oscillometric curve of arterial obstruction

Treatment of Burns—The line of treatment advocated by Mackenzie is active surgical intervention, consisting in immediate removal of all dead tissues under a general anesthetic and the liberal use of Wright's hypertonic saline solution

Hereditary Hemorrhagic Telangiectasia—Mekie reports a case of an unusual hereditary condition of the venules and capillaries of the skin and mucous membranes The man, aged 38, had advanced pulmonary tuberculosis He gave a long history of recurring epistaxis He had numerous telangiectases on the lips, which he stated had existed since he was about 15 years of age, they appeared one at a time, but all within two years of each other Some years later similar spots appeared on the nose, cheeks, tongue, nasal septum, gums and soft palate The spots were bright red and, except at certain times, were not palpable They consisted of a cluster of dilated venules or capillaries, which lay immediately under the surface layer of the epithelium The patient's grandfather father, two of his uncles, one sister and three cousins had the same condition The patient's seven children were not affected

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Bulletin de l'Académie de Médecine, Paris

97: 229 260 (Feb 22) 1927

*Etiology and Pathogenesis of Pulmonary Gangrene H Vincent —p 232
Vichy Waters in Treatment of Diabetes M Labbe —p 249
Technic for Homoplastic Parabiosis H H Goiriena —p 252
Theory of Pathogenesis of Asthma Treatment P Cantonnet —p 255

Etiology and Pathogenesis of Pulmonary Gangrene.—Vincent asserts that in pulmonary gangrene, the role of *Bacillus fusiformis* is more important than that of *Spirochaeta vincenti* Of four patients with gangrene or gangrenous abscess of the lung, he found spirochetes in three In two their amount was insignificant, in the fourth, they were entirely absent The spindle shaped bacillus was present in all The coexistence of streptococci, tubercle bacilli or syphilitic treponemes favors greatly the development of gangrene Malnutrition avitaminosis, anemia and diabetes are contributing factors, as is general anesthesia by ether or chloroform The pathogenic micro-organisms come from the buccal cavity The seat of the anaerobic spindle shaped bacillus is in the center of the lesion, that of the aerobic spirochete is on the surface of the lesion Total lack of air in the center of the lesion explains why expectoration in pulmonary gangrene is always fetid, while that in bronchospirochetosis is usually free from odor

97. 261 284 (March 1) 1927

*Bronchial Lesions in Tertiary Syphilis E Sergent and R Benda —p 262
Cancer of Fourth Portion of Duodenum V Pauchet and Luquet —p 276
Recrudescence of Sudden Deaths Faure —p 280
Experimental Insufficiency of the Liver Remond and Boulicaud —p 282

Bronchial Lesions in "Tertiary Syphilis"—Sergent and Benda call attention to the fact that besides the large bronchi and the lungs the smaller bronchi may be the location of syphilitic lesions The presence of the latter is revealed by clinical signs and by roentgenograms They describe eight cases of bronchial or peribronchial sclerosis obviously due to tertiary syphilis In eight cases the process could have developed from tuberculosis as well as from syphilis Bronchial syphilis should be differentiated from syphilitic bronchiectasis, which may accompany or rather follow the former Sclerosis and gummas may be associated Coexistence of tuberculosis is especially frequent

Bulletins de la Société Médicale des Hôpitaux, Paris

51 225 268 (March 3) 1927

*Cough in Cardiac Insufficiency C Lian and Gilbert Dreyfus —p 225
Therapeutic Value of Purified Diphtheria Antiserum Lesne et al —p 235
Suppuration of the Liver from Foreign Body A Lemierre and L Pollet —p 241
Malignant Lymphogranulomatosis with Intact Spleen C Aubertin and Destouches —p 245
*Estimation of Biliary Acids in Duodenal Juice M Chiray and L Cuny —p 253
Influenza in the Course of Chronic Visceral Diseases M Renaud and C Juge —p 261
Influenza in the Elderly M Renaud and C Juge —p 265

Cough in Cardiac Insufficiency—Lian and Gilbert-Dreyfus point out the fact that cough is frequently the only symptom in the beginning of cardiac insufficiency In a third of the cases, the cough occurs when the patient is recumbent, in a sixth of the cases, it follows muscular effort In some patients, cough appears during the night and in the morning, in others, after meals Sometimes there are paroxysms of coughing, appearing every two or three minutes, they resemble the paroxysms of whooping cough About 50 per cent of patients investigated by them were young, they presented cardiac lesions, chiefly those of the mitral valves The others were about 50 years old, in these arterial hypertension was present Auscultation of the respiratory tract does not usually reveal pathologic signs The mechanism of this cough is explained by the presence of a passive edematous congestion in the lung, from abnormal diminution of the systole The cough may subside on relieving the cardiac insufficiency Administration of digitalis by the mouth is indicated

Estimation of Biliary Acids in Duodenal Juice.—Chiray and Cuny give a detailed description of their method for measuring biliary acids in the duodenal juice obtained by a tube Variations in concentration of biliary acids in A, B and C biles appeared to parallel the variations in biliary pigments That the excretion of biliary acids is in inverse proportion to the excretion of cholesterol was not shown The amount of biliary acids, so far estimated only in the B bile, was from 7 to 15 Gm per liter

Gynécologie et Obstétrique, Paris

11: 369 444 (Dec) 1926

A Technic for High Forceps J C Llames Massini —p 369
*Atropine and Morphine in Rigidity of the Uterine Cervix E Toneff —p 384
Radiotherapy of Cancer of the Uterine Cervix S Laborde and Y I Wickham —p 397
Therapeutic Abortion from the Medical and Legal Standpoints. J. Hartemann —p 412

Atropine Plus Morphine in Treatment of Spasmodic Rigidity—Toneff reports, among others, ten cases of spasmodic contraction of the uterine cervix, in which atropine or belladonna combined with morphine were employed The alkaloids were given by injection or by suppositories The dose of atropine was 0 0005 Gm , that of belladonna was from 0 06 to 0 09 Gm , that of morphine, 0 02 or 0 03 Gm These doses were given within four to six hours Toxic phenomena on the part of the woman or of the fetus were never observed Suppression of spasms, and consequently of rigidity in the uterine cervix, favored dilatation of the orifice, thus hastening the delivery The usual obstetric interventions are indicated only after this treatment fails Chloroform used in such cases did not exert an appreciable antispasmodic action

Journal d'Urologie Médicale et Chirurgicale, Paris

22: 449 544 (Dec) 1926

Leukoplakia of Urinary Tract R Allemann —p 449
*Incontinence of Urine and Genital Diseases Serrallach —p 471
Acidogenic Bacillus in Urinary Infections G Cirillo —p 479
Interrelation of Kidney and Appendix in Pathology S Rolando —p 482
Polycystic Kidney in a Woman G Carajannopoulos —p 484

Dribbling of Urine After Micturition.—Serrallach calls attention to patients in whom micturition is followed by a more or less prolonged dribbling of the urine He found this disturbance to be pathognomonic for congestion of the spermatic organs The condition favors particularly the spread of infection from the urethra to the genital organs

Lyon Chirurgical

23: 681 804 (Nov Dec) 1926

*Remote Results of Gastrectomy for Cancer X Delore et al —p 681
Gastric Secretion with Gallstones Operative Methods E Dahl Iversen —p 743
*Technic for Exposing the Stellate Ganglion R Leriche —p 763

Remote Results of Gastrectomy for Cancer.—Delore, Mallet-Guy and Burlet's statistics are based on 239 cases of gastrectomy for cancer The operative mortality was between 16 and 17 per cent The percentage of deaths within the first year after the operation was 21, within the second and third years, 33 and 17, respectively Recurrences were observed three and even six years after the operation Those who have survived more than six years are considered as cured They number fourteen Two feel well and are carrying on their usual occupations thirteen and fifteen years after the operation The prognosis of colloid cancer is graver than that of typical cancer

Method for Exposing the Stellate Ganglion at Operation—Leriche believes that the vertebral artery is the proper guide in finding the stellate ganglion This ganglion is composed of the lower cervical and the first thoracic ganglions The presence of the intermediate ganglion is almost constant It is situated in front of the stellate ganglion and is sometimes mistaken for the latter, this fact may be responsible for the failure of some interventions Leriche's incision is made between the two portions of the sternocleidomastoid muscle It is oblique and measures 6 cm , estimating from the upper border of the clavicle Details of the proceeding are given This method applied in thirty-four operations proved to be more convenient than the usual one, in which the ganglion is sought for by following the sympathetic chain

Paris Médical

63: 245-269 (March 12) 1927

Classification of Diseases. C. Achard.—p. 245.
*Essential Convulsions and Spasmophilia. G. Heuyer and J. Lonchampt.—p. 251.
Syndrome of Angina Pectoris in Mitral Stenosis. J. M. Pareja.—p. 256.

Essential Convulsions in Infancy and Spasmophilia.—Heuyer and Lonchampt sustain the theory that essential convulsions in infants are identical with epileptic convulsions in adults. Moreover, they do not find any difference between essential and symptomatic convulsions. They are caused by lesions of the central nervous system. The lesions are due to injury to the skull, infection or tumor of the brain. The rôle of the constitution is important, especially that of congenital syphilis. Syphilis was present in 49.3 per cent of infants with essential convulsions examined by the authors. It is possible that transient lesions in the organism, from disease, poisoning or changes in the blood serum are able to provoke convulsions. In essential convulsions the loss of consciousness is complete, in tetany consciousness is retained. Chvostek's sign is rarely elicited. It is not pathognomonic for tetany. The prognosis of essential convulsions depends on the gravity of the lesions. Of 300 children treated for nervous or mental disease, 133 had had convulsions in the past. The authors did not obtain positive results from calcium chloride or ultraviolet rays. In dubious cases, antisyphilitic treatment should be instituted and continued over a long period.

Presse Médicale, Paris

35: 273-288 (March 2) 1927

*Hematuria with Urethral Stenosis. J. Duvergey and L. Dax.—p 273.
*Constitution and Hemorrhages in Typhoid. P. Émile-Weil and R. Lévy.—p. 274.
Case of Osteomalacia in a Man. E. Chabrol et al.—p. 275.
*Procaine Hydrochloride in Perineal Anesthesia. S. E. Risacher and R. Waitz.—p. 277.

Hematuria from Urethral Stenosis.—In one of Duvergey and Dax's cases of urethral stenosis, hematuria occurred intermittently during two years; in five others, it was continuous during a few weeks or months. The appearance of blood in the urine was usually spontaneous, sometimes following a transient retention. In all these cases, operation or cystoscopic examination revealed congestive or ulcerous lesions in the bladder. While mere dilatation of the urethra may suffice in some cases, in others internal urethrotomy or cystostomy are required.

Pathogenesis of Intestinal Hemorrhages in Typhoid.—Emile-Weil and Lévy found that intestinal hemorrhages occurring in typhoid are not exclusively of local origin. The anamnesis and examination of the patients' blood testified to the fact that the hemorrhage is one of the signs of a hemophilo-hemogenetic syndrome. The syndrome may be constitutional or may be acquired in the course of the disease. In typhoid, thrombopenia and involvement of the spleen, bone marrow and liver explain the pathogenesis of the hemophilo-hemogenetic syndrome. The aim of the treatment should be to accelerate coagulation of the blood rather than to enhance vasoconstriction. In typhoid patients with a hemorrhagic diathesis, intestinal hemorrhages may be averted by injections of blood. About 20 cc. of blood from a healthy person is injected subcutaneously, or intravenous transfusions are given. Injection of 300 cc. of blood arrested intestinal hemorrhage.

Procaine Hydrochloride in Spinal Anesthesia Limited to the Perineal Region.—Risacher and Waitz use a 50 per cent solution of procaine. A drop of this hypertonic solution introduced into the subarachnoid space immediately reaches the bottom of the dural culdesac, where it causes a local anesthesia, in which the caudal roots are involved. Anesthesia of the genital, perineal and anal region is thus obtained. The lumbar injection is given with a fine syringe needle, preferably at the level of the iliac crests, with the patient sitting. The injection may or may not be preceded by withdrawal of cerebrospinal fluid. Anesthesia is complete in five minutes. The anteroposterior limits of the anesthetized region are the anterior part of the vulva and the sacrum; laterally the anesthesia extends beyond the limits of the perineum; in depth it reaches as far as the uterine cervix. It lasts from an hour and a half to two hours. It does not influence the uterine contractions, but pain is abolished. This method of anesthesia was used in seventy cases of forceps, embryotomy, extraction by the breech, version, delivery and perineorrhaphy. The method can be advantageously employed in minor gynecologic operations. There were never any by-effects. Assistance is not required.

35: 289-304 (March 5) 1927

*Remote Complications of Injury to the Skull. M. Villaret and J. Bailby.—p 289
*Pathogenesis of Serum Accidents. V. de Lavergne.—p. 290.
Colipyuria and Deformities of the Urinary Tract in Infants. P. F. Armand-Delille and M. Bespaloff.—p. 293.

Fate of Patients with Injury to the Skull.—Villaret and Bailby's statistics include 500 patients reexamined ten or twelve years after an injury to the skull. Aggravation of the initial condition was observed in 26 per cent. It was connected with the presence of a subdural hematoma or with loss of cerebral tissue. The tardy complications were represented chiefly by epilepsy, spastic or flaccid paralysis, mental derangement or visual disturbances. Tardy development of an abscess in the brain caused death in 1.34 per cent.

Pathogenesis of Serum Phenomena.—In Lavergne's opinion, shock occurring immediately after a second injection of serum and serum disease following a single injection in from eight to twelve days are both phenomena of anaphylaxis. In man the first injection of serum is at the same time preparatory and provocative. It is preparatory owing to the sensitization induced; it can be provocative as long as the foreign protein persists in the organism, namely from eight to twelve days. A second injection of serum accelerates the appearance of anaphylactic phenomena.

Revue de Chirurgie, Paris

45: 549-617, 1926

Displacement of Foot in Fractures of the Ankle. P. Bohème.—p. 549.
*Study of the Thymus: Its Rôle in Surgery. H. Godard.—p. 563.
Ligation of Common Carotid in Pulsating Exophthalmos. E. de Peyrelongue and F. Baur.—p. 595.
Amebic Tumors of the Large Intestine. E. P. Lasnier.—p. 603.

Study of the Thymus; Rôle of the Organ in Surgery.—Godard sustains the theory that involution of the thymus starts at the period of puberty; it continues until the age of 25. Remnants can be found in very old persons. He describes the anatomy, histology and physiology of the organ, which is considered an endocrine gland. The therapeutic use of thymic extracts and grafts is discussed. Tumors of the thymus are studied, as well as the connection between its enlargement and syncope or death during anesthesia.

Revue Française de Pédiatrie, Paris

2: 687-834 (Dec.) 1926

The Sympathetic System in Infants. J. Minet et al.—p. 687.
*Primary Acidosis in Infants. C. Torres Umaña.—p. 717.
Merbaphen Test in Young Children. R. Baranski and M. Bussel.—p. 736.
*Estimation of Lactic Secretion in Nursing Women. T. Abramson.—p. 758.
Rare Complications of Typhoid. V. Mikulowski.—p. 764.
Cardiovascular Diseases in Children. E. Lesné and G. Dreyfus-Sée.—p. 774.

Pathogenesis of Primary Acidosis in Infants.—Torres Umaña observed primary acidosis most frequently in children under 2 years. Uncontrollable vomiting and depression are the prevailing clinical manifestations of the disease, ending frequently in death. Increased acidity of the body fluids with increase of urinary ammonia and amino-acids is associated with decreased alkalinity of the blood. The coexistence of acetonemia creates a condition of acute diabetes. A transient factor, such as an infection of intestinal or of external origin, may be to blame. A radical treatment for infantile acidosis is so far unknown.

Estimation of Secretion of Milk in Nursing Mothers.—In 188 nursing women, Abramson measured the temperature in the axilla and under the breast. In women whose milk sufficed for the babies' normal growth, the temperature under the breasts was higher than that in the axillae, by from 0.2 to 1.8 C. In women with arrested lactation, both temperatures were equal. In mothers who had milk in one breast, while in the other the secretion was impaired, the temperature was higher under the functioning breast than under the other. In women with a febrile disease, the difference of the temperatures was less clearly manifest. A comparison of the two temperatures may help in determining whether the functioning of the breasts is or is not sufficient for the infant's needs.

Schweizerische medizinische Wochenschrift, Basel

57: 169-192 (Feb. 19) 1927

*Direct and Indirect Phototherapy of Rickets. E. Wieland.—p. 169.
Radiographic Symptom of Aneurysm of the Left Auricle. I. Mahaim. —p. 183.

57: 193-216 (Feb. 26) 1927

Fracture of the Metacarpus. O. Winterstein.—p. 193.
Electrically Heated Laryngeal Mirrors. J. Stephani.—p. 210.

Direct and Indirect Phototherapy of Rickets.—Wieland found that ultraviolet light or irradiated milk powder cures the bone changes in rickets, but is without influence on the anemia. A mixed diet containing not more than one tenth of the body weight of irradiated milk (in older children not over one-half liter) with added iron is recommended.

Policlinico, Rome

34: 271-306 (Feb. 21) 1927

Diagnosis of Appendicitis. G. Gucci.—p. 271.
Hematuria in Appendicitis. E. Fronticelli.—p. 275.
"Surgery of Pulmonary Tuberculosis." N. Leotta.—p. 276.

Riforma Medica, Naples

43: 169-192 (Feb. 21) 1927

Influenzal Meningitis. R. Silvestrini.—p. 169.
*Agglutinin Titer and Glycemia. E. Periti.—p. 171.
Genitodystrophic Geroderma. E. Mariotti.—p. 174.
Diathermy. M. Sorrentino.—p. 178.
Microscopic Examination of Feces. G. Moretti.—p. 186.

Agglutinin Titer and Glycemia.—Periti found that addition of 0.08 per cent of dextrose to the physiologic solution used for dilutions increases the agglutinating potency of the serum without decreasing its specificity. With this method the agglutinins may be found earlier in the course of the disease than with the classic method.

Rivista di Clinica Pediatrica, Florence

25: 73-144 (Feb.) 1927

Skin Necrosis from Diphtheria. M. Pergola.—p. 73.
Facial Phenomenon in School Children. E. De Micheli.—p. 97.

Medicina Ibera, Madrid

1: 289-316 (March 12) 1927

*Postvaccinal Encephalitis. F. J. Ontiveros and J. D'Harcourt.—p. 289.
Treatment of Cystitis. F. Sarasua and A. Peña.—p. 293.

Vaccination and Encephalitis.—Postvaccinal encephalitis has not, so far, occurred in Spain. In revaccinating several groups of soldiers, Ontiveros and D'Harcourt used large doses of a very potent smallpox virus and extensive scarifications. Specific allergic reactions developed rather uniformly, but without the slightest nervous symptom. About 3,000 recruits were inoculated against typhoid from twelve days to four months after being vaccinated. No nervous phenomena appeared, save tremors in patients who had suffered from that condition since childhood. Postvaccinal encephalitis must, they hold, be caused by a preexistent virus, activated by the vaccine.

Prensa Médica Argentina, Buenos Aires

13: 853-896 (Feb. 20) 1927

Periarterial Sympathectomy in Volkmann's Ischemic Contracture. A. Ceballos and J. A. Caeiro.—p. 853.
Juvenile Spasmodic Astereognosis. M. R. Castex and A. F. Camauër. —p. 860.
*Survival of Tissues After Death. A. H. Roffo.—p. 873.

Survival of Tissues After Death.—Roffo's experiments show that both embryonic tissues and tissues of newly hatched chickens develop perfectly, even for as long as ten days after the death of the animal. Spleen and heart tissues survive longer than the skin. Ten days after slaughtering an animal, heart beats are still visible. If this property can be extended to other structures, such as nervous tissue, any number of biologic questions may come up; for instance, when does a person actually die?

Revista Esp. de Urología y Dermatología, Madrid

28: 621-674 (Dec.) 1926

*Treatment of Syphilis by Mouth. M. Garriga.—p. 621.

Treatment of Syphilis by Mouth.—In the exceptional cases in which arsphenamine cannot be used in early syphilis the pentavalent arsinic acids may be given by mouth. The best of these drugs is meta-amino-para-oxy-phenyl-arsinic acid. The dose is 2 cc. per kilogram of body weight. When it is combined with bismuth, the result is even better. Meta-amino-para-oxy-phenyl-arsinic acid may be used with advantage in latent syphilis, in pregnancy and in children.

Revista de Especialidades, Buenos Aires

1: 181-453 (Aug.) 1926. Partial Index

Reticular Scar Tissue in the Palpebral Conjunctiva. J. Lijó Pavia and M. Dusseldorp.—p. 181.
Hydatid Cysts of the Orbit in Uruguay. A. V. Barrière.—p. 196.
Keratoconus and Abderhalden's Test. A. Natale.—p. 210.
*Roentgen Rays in the Treatment of Interstitial Keratitis. E. de la Vega. —p. 225.
Viewing the Interior of the Eye. E. P. Fortin.—p. 238.
Mikulicz' Syndrome. C. C. Damel.—p. 251.
Blood Pressure in the Capillaries of the Retina. E. Lida and E. Adrogué. —p. 264.
Parinaud's Conjunctivitis. R. Argañaráz and J. Lijó Pavia.—p. 276.
Atypical Congenital Muscular Strabismus. E. Adrogué.—p. 292.
Spontaneous Arterio-Venous Aneurysm. A. Tiscornia and A. Crocco. —p. 304.
Resorption of Masses of the Transparent Lens in the Anterior Chamber. J. Lijó Pavia.—p. 317.
Case of Sarcoma of the Orbit. B. Courtis.—p. 324.
*Treatment of Trachoma with Abadie's Electric Cautery. M. Dusseldorp. —p. 346.
American Leishmaniasis of the Skin with Eye, Nose, Mouth and Throat Complications. F. Belgeri and M. Dusseldorp.—p. 372.
Brown-Séquard's Syndrome Caused by Shock and Traumatic Hematomyelia. M. Alurralde and M. J. Sepich.—p. 383.
*Spinal Fluid Change After Malarial Therapy of General Paralysis. G. Bosch and A. Mó.—p. 426.
Spontaneous Extraperitoneal Rupture of Kidney with Uronephrosis. E. Castaño.—p. 431.

Roentgen Rays in Interstitial Keratitis.—In four cases of interstitial keratitis, de la Vega tried roentgen rays with excellent results. The results were better and quicker in the two cases in which treatment was started early. With keratitis of doubtful origin the effects are less certain; children with tuberculosis of the glands seem to receive the least benefit. The roentgen-ray therapy must be combined with general treatment. The dose was 30 per cent of the erythema dose, filtered through 2 mm. of aluminum and applied once in three weeks till from four to six doses had been given.

Electric Cautery in Trachoma.—In twenty-two patients with trachoma, Dusseldorp tried Abadie's method of cauterization. Seventy per cent improved promptly. The symptoms most amenable are: tarsitis, corneal ulcer, subjective discomfort, pannus, ptosis and conjunctival changes. The usual methods of treating the conjunctiva must be continued.

Spinal Fluid Change After Malarial Therapy.—Bosch and Mó report cases of general paralysis treated with malaria. The Wassermann and the globulin tests changed from frankly positive to negative. The clinical condition also improved greatly.

Semana Médica, Buenos Aires

34: 321-384 (Feb. 10) 1927. Partial Index

Syphilitic Chronic Gastritis. J. R. Goyena.—p. 321.
Colles' Fracture. R. Finochietto.—p. 324.
*The Blood of the New-Born. F. A. Deluca.—p. 337.
Closure Without Drainage in General Peritonitis. H. Dionisi.—p. 350.
Hookworm Disease. I. C. Odena.—p. 356.
Adenosarcoma of the Kidney in an Infant. F. Pozzo and A. E. Bianchi. —p. 369.
Parasites in Edible Fish. E. J. MacDonagh.—p. 373.

Characteristics of the Blood in the New-Born.—Deluca performed forty-eight blood examinations on twenty-four new-born babies. In four the blood was taken from the cord, in the rest it was withdrawn from a few hours to twenty-one days after birth. Polycythemia is usual; the lowest number of erythrocytes found was 5,260,000 per cubic millimeter. The maximum was 8,250,000 and in the majority of cases the number lay between 6,500,000 and 7,000,000. The hemoglobin went as high as 160 per cent and only twice fell below 100. There were from 485 to 2,028 erythrocytes to each leukocyte. The color index was in sixteen cases above 1; in sixteen, from 0.90 to 1; in seven, from 0.80 to 0.90; in three, from 0.70 to 0.80; in two, from 0.60 to 0.70. The often quoted hyperleukocytosis of the new-born was never found. The highest leukocyte count was 12,400 per centimeter. On the other hand, leukopenia was frequent. Lymphocytes presented both absolute and relative increase and neutrophils the opposite. Eosinophils exhibited absolute and relative increase, but not regularly. Rieder's cells were found three times, and Türck's once.

Siglo Médico, Madrid

74: *293-320 (March 12) 1927*

Biomicrostereoscopic Study of the Iridocorneal Angle. A. Castresana.—p. 293. C'td.
*Acriflavine in Gonorrheal Arthritis. A. Pulido Martin.—p. 296.

Acriflavine in Gonorrheal Arthritis.—After other treatment had failed, Pulido treated fifteen patients with gonorrheal arthritis and polyarthritis by intravenous injection of 2 per cent acriflavine. All were cured.

Archiv für Dermatologie und Syphilis, Berlin

152: 529-778 (Dec. 31) 1926

*Constituents of Tar That Produce Carcinoma. B. Bloch and F. E. Widmer.—p. 529.
Recurrence of Fungous Diseases of the Scalp After Roentgen-Ray Treatment. E. Muskatblüt and N. Tschernogubow.—p. 544.
*The Optimal Arsphenamine Dose. S. Bogdanow.—p. 562.
A Symmetrical Syphilitic Leukoderma. I. Kliorin.—p. 568.
*Genesis of Xanthoma. F. Herrmann and E. Nathan.—p. 575.
Papilliform Syringocystadenoma. H. Biberstein.—p. 602.
Posterity of Patients with Neurofibromatosis. G. A. Fischer.—p. 611.
*Turpentine Dermatitis. A. Perutz.—p. 617.
*Blood Sugar in Skin Diseases. M. Loeb.—p. 653.
Action of Antisyphilitic Drugs. S. Somogyi.—p. 660.
Filtrable Herpes Virus. S. Minami and I. Ehara.—p. 664.
Herpes Zoster Generalisatus—Herpes Zoster Varicellosus. F. Hinze.—p. 670.
Neurodermatitis and Neuroderma. C. Kreibich.—p. 672.
Two Cases of Cancroid. C. Kreibich.—p. 679.
*Carcinosis Cutis. W. L. L. Carol.—p. 684.
Generalized Syphilis in the Rabbit. P. Uhlenhuth and H. Grossmann.—p. 708.
Trypanosomal Disease of the Rabbit as Model of Syphilis. A. Stühmer.—p. 738.
Fatal Poikilodermia Atrophicans Vascularis (Jacobi). H. Mierzecki.—p. 751.
Atrophying Follicular Keratoses. M. Lang.—p. 756.
*Etiology of Eczema in Infants. F. Rosenbund and A. Meyerstein.—p. 772.

Constituents of Tar Active in Producing Experimental Carcinoma.—Bloch and Widmer found that distillates of tar obtained at temperatures below 230 C. (under a pressure of 1.15 mm.) did not produce cancer in mice; between 230 and 250 C., the cancer producing activity was slight. In those obtained at temperatures above 250 C., it was stronger than in raw tar or in the total distillate. The greatest activity was found in tar distilled over at temperatures between 275 and 284 C. The residuum contained little of the active material. It appears that the carcinogenous activity of tar resides not in one but in a number of substances. These substances do not contain nitrogen, sulphur or arsenic compounds. It is probable that they are cyclic hydrocarbons of unknown nature, possessing a high molecular weight.

The Optimal Dose of Neoarsphenamine.—In a series of ten patients, Bogdanow found that 5.1 Gm. of neoarsphenamine was the average quantity required to convert a positive into a negative Wassermann reaction, when the drug was given in doses of 0.3 Gm. three times a week; whereas an average of 6.6 Gm. was necessary in a comparable series of patients, to whom 0.9 Gm. was administered once a week.

Genesis of Xanthoma.—In two cases, one of xanthoma juvenile multiplex localisatum, the other of xanthoma juvenile multiplex dissemination, the serum cholesterol was investigated from the physical and chemical standpoints. In the first case, there was neither an increase in the total cholesterol nor marked direct precipitation of cholesterol. In the second, on the other hand, the cholesterol index was very high and an absolutely and relatively large part of the cholesterol could be directly precipitated.

Turpentine Dermatitis.—This article contains a study of the clinical picture, pathogenesis and treatment of the occupational dermatitis of workers in paints, polishes, shellacs, etc., particularly from the standpoint of its allergic nature. It appears probable, from Perutz's experiments, that skin allergic to turpentine is hypersensitive only to unsaturated terpenes, and does not react to saturated terpene hydrocarbons. A disturbance in the vagosympathetic equilibrium can be demonstrated, in the sense of exaggerated vagal excitability. Whether this is a predisposing factor or a result of the cutaneous hypersensitiveness is not known. Examinations of the blood and pharmacodynamic studies of the skin confirm the observation of a preponderance of the parasympathetic over the sympathetic function. Therapeutically, blocking the parasympathetic with atropine or augmenting the excitability of the sympathetic with epinephrine and ephedrine is suggested, in addition to desensitizing treatment.

Blood Sugar in Skin Diseases.—In a material of 462 cases, Loeb found an absolute increase in the blood sugar in dermatitis intertriginosa, a tendency to general increase in furunculosis, distinct hypoglycemia in asthma, in late exudative eczematoid and in exudative infants. In individual cases of other skin diseases also, he found the blood sugar increased. The hypoglycemia in the conditions mentioned may be regarded as a symptom of an existing vagotonia.

Bowen's "Precancerous Dermatosis."—Carol presents a detailed histologic study of a case of carcinosis cutis of a peculiar type. It occupies a position between basal cell carcinoma and squamous cell epithelioma. It differs from the first by great irregularity of structure, from the second by the slight importance of epithelial pearls in the histologic picture. The atypical mitoses and the atypical large cells are characteristic features and more in evidence than the phenomena of dyskeratosis. Precancerous dermatosis seems to Carol an incorrect designation, carcinosis cutis multiformis (verrucosa) might be preferable.

Etiology of Eczema in Infants.—In their experiments on infants Rosenbund and Meyerstein found that application of stool or urine to healthy skin resulted in many cases in a lesion apparently identical with infantile eczema. The stools and urines of children with eczema or neurodermatitis acted more powerfully in this respect than those of children with healthy skin, and the skin of eczematous children responded to the irritation more frequently and more intensely than did that of children without a skin lesion. The nature of the irritative substances in the stool and urine could not be ascertained.

Beiträge zur klinischen Chirurgie, Berlin

138: *391-582, 1926*

Payr's Pyloromyotomy. E. Steden.—p. 391.
*Palliative Resection for Ulcer. H. Schomberg.—p. 395.
Surgical Treatment of Recurrent Dislocation of the Shoulder. E. Logen.—p. 401.
*Typhoid Spine. G. Haselhorst.—p. 417.
Lumbosacral Spondylolisthesis. W. Jaroschy.—p. 428.
*Surgical Treatment of Injury to the Recurrent Laryngeal Nerve. O. M. Chiari and W. Stupka.—p. 461.
*Diagnosis and Treatment of Subphrenic Abscess. W. Graf.—p. 483.
Disease of Sesamoid Bones of the First Metatarsal. W. Müller.—p. 494.
Chronic Intussusception in Childhood. W. Birkenfeld.—p. 521.
Fracture of the Spine in Tetany. W. Bäcker.—p. 555.
The Duodenal Sound in Surgery. F. Dietel.—p. 559.

Palliative Resection for Nonresectable Ulcer.—In Finsterer's "resection for exclusion," the ulcer itself is left, the antrum and part of the body of the stomach, in some cases also the pylorus and a narrow cuff of duodenum, are resected. In Flörcken's clinic four cases of gastric ulcer were operated on by this method. From two to four years later three of the patients reported themselves as entirely well, the fourth was much improved. The method was used in forty patients with duodenal ulcer. In eight there were multiple ulcers of the anterior and posterior walls, in five the ulcer had penetrated into the pancreas, twice there was callous ulcer with cholelithiasis, in twenty-five cases the ulcers were deep seated or had caused extensive induration in the hepatoduodenal ligament or adhesion between the duodenum and the lower surface of the liver Eight of these patients could not be traced, so that late results were obtained in only thirty-two cases Three per cent died, 8 per cent were unimproved, 13 per cent improved and 76 per cent cured

Typhoid Spine—Haselhorst describes a typical case The changes in the spine were followed in roentgenograms taken every four weeks for three months and again at the end of two and four months Lateral as well as postero-anterior exposures were made and are reproduced

Injury to the Recurrent *Laryngeal* Nerve—Operation for goiter had resulted in paresis of the region of supply of the recurrent laryngeal nerve on both sides Phonation was possible with the aid of the left recurrent nerve only Chiari and Stupka planned neurotization of the posticus muscle of the right side *The neurotization did not succeed, but by the* plastic operation a permanent widening of the glottis from traction was achieved with the result that the patient was restored to health and working ability

Diagnosis and Treatment of Subphrenic Abscess—Graf discusses the danger of infecting the pleural cavity in making trial punctures for the location of an abscess that has burrowed upward into the vicinity of the costodiaphragmatic sinus He has worked out a method to avoid this danger By resecting the tenth and eleventh ribs (or more), the diaphragmatic musculature in the prediaphragmatic space is exposed the sinus is pressed upward and after caring for the nerves and vessels of the region puncture is made through the exposed diaphragm

Deutsche medizinische Wochenschrift, Berlin

53 265 306 (Feb 11) 1927

*Chemotherapy of Syphilis in Rabbits P Uhlenhuth and H Grossmann —p 265
*Serodiagnosis of Tuberculosis I Rabinowitsch Kempner —p 267
Blood Sedimentation M Bonniger —p 269
Recovery from Acute Myeloneuritis G L Dreyfus —p 270
Occult Bleeding K Hille —p 273
Determination of Pepsin K F Franke —p 275
Albuminuria in Adolescents F Hoppe —p 276
*"Sanocrysin Treatment T Madsen and J R Morch —p 277
Determination of Residual Nitrogen W Seidel —p 278
Compression Myelitis and Acute Poliomyelitis E Siemerling —p 280
*Sugar Treatment in Tonsillitis and Diphtheria L Koenigsberger and S Mussliner —p 282
*Treatment of Oxyuriasis with Sulphur Nottebaum —p 283
Structure and Function of Cell Membranes R Mond —p 283
Medical Statistics in the United States F Prinzing —p 285
Accident and Sickness Insurance Reckzeh —p 286
Modelling in Teaching Anatomy Brodersen —p 287
Quackery and Medical Science Goldscheider —p 289 C td
Milk Supply E Loewy —p 302

Chemotherapy of Syphilis in Rabbits.—Uhlenhuth and Grossmann believe that a negative result of reinfection does not exclude the possibility that the animal has been cured They prefer to inoculate an emulsion from the organs of such an animal If the latter method of control of the chemotherapeutic results is used it seems that it is possible to cure completely grave generalized syphilis in rabbits

Serodiagnosis of Tuberculosis — Rabinowitsch-Kempner obtained identical results in a large series of tests made with Besredka's antigen and technic and with the simplified technic and antigen of Neuberg and Klopstock She concludes that the latter method constitutes decided progress in serodiagnosis of tuberculosis

"Sanocrysin" Treatment—Madsen and Morch had good results in experimental tuberculosis in rabbits In tuberculosis of low virulence, small doses and addition of serum were necessary Intolerance was frequent Virulent tuberculosis required large doses of the drug, and these doses were well tolerated

Sugar Treatment in Tonsillitis and Diphtheria.—Koenigsberger and Mussliner recommend local application of powdered sugar or a strong (30 to 40 per cent) solution of sugar in *treatment* of diphtheria of the nose, tonsillitis and Vincent's angina

Treatment of Oxyuriasis.—Nottebaum confirms the good results obtained with sulphur in oxyuriasis He recommends a mixture of equal parts of precipitated sulphur and compound powder of licorice Children are given a small amount three times daily after meals for eight days; adults, about a teaspoonful The amount should be large enough to cause mushy stools The treatment may be repeated after a week The hands must be kept clean and the anal region should be treated with a 5 per cent calomel ointment

53: 307 348 (Feb 18) 1927

Functional Disturbances of Blood Vessels H Schlesinger —p 307
Hemorrhagic Aleukia H Ellmer —p 310
Interferometric Prediction of Sex A Streck —p 312
Serotherapy of Scarlet Fever H Jenthe —p 313
Standardization of Vitamin Preparations W Gehlen —p 316
*Elective Action of Ultraviolet and Radium Rays J Seide —p 317
Electrocardiogram in Myxedema Lueg —p 319
Blood Urea and Indican M Szour —p 319
Meningococcus or Gonococcus Sepsis? A Jacoby and H Cohn —p 320
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Roentgen Ray Study of Female Genital Organs R Zimmermann —p 327 C td
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Elective Action of Ultraviolet and Radium Rays.—Seide irradiated Hydatina senta (rotifers), which from parthenogenetic ova at short intervals When he used radium, the ova were injured and the helminths survived—just as postulated by the Bergonie-Tribondeau law On the other hand, ultraviolet rays killed the animals, while the ova developed This confirms Ruppert's observations

Stomach Tube in Feeding Children with Bronchopneumonia—In children with complete lack of appetite Reiche had good results from forced feeding with a stomach tube He warns against the use of the stomach tube in bronchopneumonia It excites the patient too much and probably impairs the prognosis

Klinische Wochenschrift, Berlin

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*Variability and Action of Enzymes H W Bansi and H Ucko —p 307
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Circulatory Insufficiency in Diabetes—Strauss observed during the war that many diabetic patients died in the precomatose condition from failure of the circulation He suggested the possibility of exhaustion of the suprarenals He has recently seen similar conditions in patients who were under insulin treatment, and came to the conclusion that insulin may change the *finale* of diabetes by substituting insufficiency of the heart for true coma. He had good results with insulin in precomatose conditions, but only two out of six patients with fully developed coma recovered. Other authors have confirmed his observations on this circulatory failure. He does not believe with Lorant that it occurs only in the "sthenic" (high blood pressure) type of diabetes. Excitants and cardiacs (caffeine, strychnine, digitalis and epinephrine) are indicated in patients with circulatory insufficiency.

Serologic Test for Blood Group O.—Schiff mixed beef serum with human blood corpuscles of group IV Jansky (AB). After this, the serum agglutinated electively human erythrocytes of group I (O). This speaks for the existence of a true antigen in corpuscles of this group—not for a mere absence of antigens A and B. Blood corpuscles of groups II (A) and III (B) were not agglutinated by this serum, although, according to Bernstein's theory, which has been confirmed by the results of investigations on heredity, some of them probably contain antigen O. He found, however, that some of these corpuscles bind the agglutinin for the O substance.

Blood Transfusions in Sepsis in Children.—Reimold and Kramer report excellent results with daily transfusions of citrated blood in children with septic affections. The amount was small in infants (20 to 30 cc. of blood), larger in older children. The injections were repeated during several days.

Variability and Action of Enzymes.—Bansi and Ucko's experiments on the action of a peroxidase on different substances (pyrogallol, guaiacol and cresol) show that the optimum of hydrogen ion concentration varies with the substratum. Therefore, the same enzyme at the same hydrogen ion concentration may accelerate one reaction and at the same time inhibit another.

Phlorhizin Diabetes.—Dietrich and Loewi found that the absorption of dextrose by erythrocytes is inhibited in a blood plasma to which phlorhizin has been added or which was taken from an animal injected with phlorhizin. Insulin counteracts this phenomenon. The liver perfused by such plasma does not accept dextrose, but it does not lose dextrose. The latter feature is different from the action of plasma from patients with hyperglycemic diabetes.

Alimentary Hyperglycemia.—Häusler and Loewi found that administration of glucose by mouth or subcutaneously is followed by an increased absorption capacity of erythrocytes for dextrose. They attribute it to an overproduction of insulin, which may be inhibited by atropine. Atropinization reveals, besides this, an inhibition of the absorption of dextrose which had been counteracted by the insulin. They believe that a nervous or humoral reflex from the gastrointestinal wall conditions the latter phenomenon, since it does not appear after subcutaneous injection of the sugar.

Medizinische Klinik, Berlin

23: 195-232 (Feb. 11) 1927

Equilibrium and Its Disturbances. P. Schilder.—p. 195.
Symposium on Treatment of Hyperthyroidism. O. Porges, et al.—p. 200. C'cn.
Intravenous Injection of Camphor and Strophantin. K. Fahrenkamp.—p. 201.
*Diagnosis of Activity of Tuberculosis. E. Szász.—p. 203.
Psychogenic Spastic Ileus. R. Köster.—p. 205.
Etiology of Ruptures of the Uterus. E. Morvay.—p. 206.
Autochthonous Sinus Thrombosis. S. Kalischer.—p. 208.
*Pathology of Trichinosis. F. Pavlica.—p. 209. C'cn.
*Anaphylaxis to Insulin. J. Engelberg.—p. 212.
"Physiology of the Pronunciation of Sibilants." E. Reichenbach.—p. 212.
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Hohn's Modification of the Meinicke Reaction. E. Schereschewsky.—p. 214.
Practical Obstetrics. H. Kritzler-Kosch.—p. 215.
Charcoal in Chronic Dysentery. Weiss.—p. 216.
Medical Expert Testimony. Von Schnizer.—p. 217.
Recent Results in Surgery. Kroll.—p. 218.

Diagnosis of Activity of Tuberculosis.—Szász believes that a very pronounced Pirquet reaction speaks for active tuberculosis—even in adults.

Pathology of Trichinosis.—Pavlica describes a small epidemic of trichinosis (nine patients with three deaths). Eosinophilic myocarditis was one of the interesting histologic changes. Eosinophils were not found in the blood in a fatal case, but the eosinophilia was marked in convalescents.

Anaphylaxis to Insulin.—Engelberg's patient presented all the signs of an anaphylactic shock after an injection of insulin. He overcame her hypersensitiveness on the next occasion by injecting a small amount (0.1 cc.) first and the rest (0.9 cc.) after fifteen minutes.

Monatsschrift für Geb. und Gynäkologie, Berlin

75: 323-462 (Jan.) 1927

The Normal Changes and Toxicoses of Pregnancy. L. Seitz.—p. 323.
Diabetes Insipidus and Pregnancy. E. Klaften.—p. 333.
Causes and Treatment of Brow Presentation. H. Högler.—p. 349.
Spasms of the Birth Passage During Labor. K. Fink.—p. 365.
*Pain Caused by Freely Suspended Uterus. H. Sellheim.—p. 368.
Salpingography After Alexander-Adams' Operation. J. Rosenblatt.—p. 382.
Treatment of Prolapse. W. Benthin.—p. 384.
Early Stages of Hydatid Mole. J. Dörffel.—p. 391.
*Congenital Syphilis. S. A. Gammeltoft.—p. 400.
Prevention and Suture of Perineal Lacerations. E. Martin.—p. 414.

Chronic Pain in Women.—Sellheim discusses chronic back or abdominal pain in women for which no cause can be found. It is brought on most often by change of position (from recumbent to upright) or by work involving increase of intra-abdominal pressure. It frequently dates from a childbirth, particularly a first childbirth late in life. He ascribes it to increased mobility of the uterus, the result of lack of support by a weakened pelvic floor. The pain is caused by dragging on the ligamental apparatus by which the uterus is suspended, and can be cured by a suitable plastic operation on the pelvic floor.

Congenital Syphilis.—In the vast majority of cases of congenital syphilis, the infection is transmitted by way of the placenta. Infection before the fourth or fifth month is improbable. Of 194 children born to syphilitic women who had never received treatment, only seven were free from syphilis. The period of observation was at least six months. The situation was improved, though still bad, in women who had received treatment before pregnancy. Treatment during pregnancy gave better results, arsphenamine much better than mercury: seventy-nine healthy children were born to ninety-eight women treated with arsphenamine during the pregnancy. Thorough treatment both before and during pregnancy yielded the best results. The fact that the disease was of long standing in the mother was not found to be any protection to the child, nor does the birth of a healthy child assure that future children will be free of infection. In Gammeltoft's clinic a child is not treated unless syphilis has been diagnosed with certainty. Prophylactic treatment confuses the healthy with the infected, which he considers a grave injustice to the latter. In uncertain cases, the child is kept under observation for six months. The mother is encouraged to suckle the child in all cases except when the infection took place late in pregnancy. An account is given of the Welander Homes for syphilitic children.

Münchener medizinische Wochenschrift, Munich

74: 95-134 (Jan. 21) 1927

*Polyamyloses in Diabetes. H. von Hoesslin and H. Pringsheim.—p. 95.
*Paramorbillous Encephalitis. F. Lust.—p. 96.
Urinary Diastase in Diseases of the Pancreas. R. Janker.—p. 101.
Isthmic Motility Early in Pregnancy. W. Hole.—p. 103.
Treatment of Gastric Ulcer. G. Tillmann.—p. 106.
Parenteral Injections of Guaiacol. Basch.—p. 108.
Hot Air Treatment of Gonorrhea in Women. H. Fieser.—p. 109.
Diabetes and Avitaminosis. P. Ziegelroth.—p. 111.
An Unusual Suicide. E. Wittermann.—p. 112.
Internal Treatment of Cholelithiasis. A. Krecke.—p. 113.
German and American Dentistry. E. Knoche.—p. 115.
Disease and Validity of Marriage. Schiedermair.—p. 116.

Polyamyloses in Diabetes.—Hoesslin and Pringsheim tested a mixture of polysaccharides obtained by fermentation of starch by *Bacillus macerans*. The preparation was well tolerated by the majority of diabetic patients.

Paramorbillous Encephalitis.—In the last few months Lust has seen four cases of encephalitis (one complicated by poliomyelitis) in children who had measles. Recovery was complete in only one case.

Wiener klinische Wochenschrift, Vienna

40: 213-244 (Feb. 17) 1927

The Interrenal System and Hermaphrodism. E. Schwarz.—p. 213. C'td.
*Cyanotic Spots in Necrosis of the Pancreas. P. Walzel.—p. 218.
Indications for Diathermy and Electrocoagulation. G. Nobl and O. *Glassberg.—p. 220.*
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Idiomuscular Contraction and Lactic Acid Content of the Blood. H. Grill.—p. 224.
Clinical Picture of Idiomuscular Contraction. V. Kollert.—p. 224.
Surgical Treatment of Detachment of Retina. R. Bergmeister.—p. 225.
"Cancer Predisposition of Ectopic Testis." I. Robinsohn.—p. 227.
"Kottmann Reaction." F. Starlinger.—p. 227.
Reply. E. Walder.—p. 228.
Drying the Hands with Warm Air. M. Kaiser.—p. 229.
Diet Poor *in* Salt. P. Saxl.—*p. 229.*
Technic of Salt-Free Diet. F. Donath.—p. 230.
Abuses of Pharmacotherapy. R. Wasicky. Supplement. 1-8.

Cyanotic Spots in Necrosis of the Pancreas.—In one of his six cases of acute necrosis of the pancreas Walzel observed the cyanosis that was first pointed out by Halsted. The cyanosis was lattice-like in shape and was noticed immediately after the operation. It lasted until the patient died.

Zeitschrift f. d. ges. experimentelle Medizin, Berlin

53: 559-885 (Jan. 3) 1927

Effect of Thyroxin on the Human Organism. H. Löhr.—p. 559.
Enterotropism of Uric Acid. F. Chrometzka.—p. 632.
Excretion of Phosphate by the Heart of the Frog. W. Frey and F. Tiemann.—p. 639.
Effect of Heart Stimulus on the Excretion of Phosphate by the Injured Heart. W. Frey and F. Tiemann.—p 658.
Colloidal Osmotic Pressure of Serum. G. von Farkas.—p. 666.
*Blood Volume and Blood Pressure. A. Hartwich and G. May.—p. 677.
The Carotid Sinus Reflex. E Moissejeff.—p. 696.
Metabolic Hormone of the Ovary. M. Kochmann and W. Wagner.—p. 705.
Poisoning by the Pancreatic Juice. J. R. Petroff.—p. 717.
Thromboses from Intravenous Injections. W. F. Katzenstein.—p. 725.
Fermentative Properties of the Prostatic Secretion. W. M. Karassik.—p. 734.
Bile Metabolism. S. Ryss and A. N. Nikolaeff —p. 738.
Visceral Reactions to Local Stimulus of the Skin by Heat. E. Freude.—p. 769.
Conduction of Stimulus from the Sinus Node to the Auricle. C. J. Rothberger and D. Scherf.—p. 792.
Metabolism in Diseases of the Liver. A. von Fejér and G. Hetényi.—p. 836.
Regulation of Blood Calcium in the Human Organism. G. Hetényi and A. von Gaál.—p. 841.
Refractometric Determination of Fibrinogen. S. Somogyi.—p. 851.
Transmission to the Rabbit of Hypersensitiveness of the Human Skin. E. Lehner and E. Rajka.—p. 855.
Pathology of Blood Serum. J. M. Goldberg.—p. 867.
*Experimental Hyperglycemia in Fever. H. Cohn.—p. 878.

Blood Volume and Increase in Blood Pressure.—Of Hartwich and May's seventeen cases of different types of kidney diseases, only five presented blood volumes in normal proportion to the body weight. In the rest of the patients the blood volumes were considerably increased. In five cases the increase was caused by augmentation of the blood plasma, in six cases both the plasma and the volume of the blood corpuscles were increased. Chronic nephritis characterized by severe renal insufficiency usually belongs to the first type. Of twelve cases of essential hypertonia five presented normal, the others increased blood volumes. The erythrocytes were usually enlarged in hypertonia. In chronic nephritis, essential hypertonia and malignant sclerosis the blood volume was diminished by a salt-free diet.

Experimental Hyperglycemia in Fever.—The blood sugar curve of the organism did not rise after peroral administration of dextrose, in Cohn's experiments on febrile human beings and animals. The metabolism is increased in fever, and the carbohydrates decomposed more rapidly than in normal conditions.

Zentralblatt für innere Medizin, Leipzig

48: 207-232 (Feb. 19) 1927

Survey of Rhinolaryngology. O. Seifert.—p. 202.

48: 233-264 (Feb. 26) 1927

This issue is devoted to the proceedings of the Society for Internal Medicine of Northwest Germany.

Vestnik Mikrobiologii i Epidemiologii, Saratov

5: *239-336, 1926.* Partial Index

Etiology of Dacryocystitis and Besredka's Method of Treatment. J. Kupryashina *and Drobyshevskaya.—p. 249.*
Mátéfy's Reaction in Pulmonary Tuberculosis. E. Ivanova.—p. 255.
Antistaphylolysin Reaction in Surgical and Tuberculous Diseases. E. Ivanova.—p. 259.
*Action of Cocci on Formation of Diphtheria Toxins in Blood Serum. *N. Gryaznoff and S. Sherishorina.—p. 263.*
Influence of Arsenic on Blood Ferments. I. Parfentyeff.—p. 269.

Influence of Staphylococcus and Streptococcus on Formation of Diphtheria Toxin in Blood Serum.—Blood serum served as the medium in Gryaznoff and Sherishorina's researches. First they cultivated staphylococci; a day later, diphtheria bacilli. It appeared that the staphylococcus causes changes in the albumin in the serum, favoring growth of the diphtheria bacilli. The formation of diphtheria toxin was more rapid and its toxicity more intense than is the case when mere serum is used. The toxin was readily destroyed, owing to the proteolytic property of the staphylococcus. The toxin-producing property of the serum was less *pronounced* when the streptococcus was used in the place of the *staphylococcus.*

Acta Chirurgica Scandinavica, Stockholm

61: 107-288 (Dec. 22) 1926

Surgical Treatment of Exophthalmic Goiter. N. H. Brodersen and H. F. Harbitz.—p. 107.
Dilatation of the Esophagus from Tuberculous Stenosis of the Cardia. A. Lundgren.—p. 172.
*Collateral Circulation in the Renal Capsule. S. Johansson.—p. 181. In English.
*Treatment of Ischemic Contraction of Muscles. S. Johansson.—p. 188. In English.
Two Cases of Tumor of the Renal Capsule. S. Johansson.—p. 197. In English.
**Torsion of Appendices Epiploicae as a Cause of Disease. S. Johansson.* —p. 205. In English.
Volvulus of the Sigmoid. B. Fernström.—p. 213. In English.
Operative Treatment of Cancer of the Colon. E. Perman.—p. 257. In English.

Collateral Circulation in the Renal Capsule.—In operating on a case of chronic pyelonephritis, Johansson was surprised to find the kidney lying inside its own capsule as a kind of sequestrum. The hilus vessels were completely obliterated. The vascular system of the capsule, on the other hand, was found to be highly developed and to have sent branches across into the cortex. By means of this collateral circulation the kidney had been enabled to continue its function.

Treatment of Ischemic Contracture of Muscles.—Johansson reports good results in three difficult cases on which he operated three or more years ago. His method consists in careful separation of all the flexor muscles and plastic elongation of their tendons.

Torsion of Appendices Epiploicae.—A woman, aged 39, had had attacks of pain in the lower abdomen for fifteen years. The pains were mostly in the right side and radiated upward. Chills and vomiting were absent. She was operated on under the probable diagnosis of torsion of an ovarian cyst. On the sigmoid flexure an appendix epiploica was found, the pedicle of which had undergone complete torsion. Nineteen cases from the literature are reviewed.

Hospitalstidende, Copenhagen

70: 97-120 (Feb. 3) 1927

*Antisyphilitic Treatment During Pregnancy. A. Kristjansen.—p. 97.
Embryonic and Tumor Cells. A. Fischer.—p. 109.
Roentgen Rays and Antirachitic Factor of Cod Liver Oil. E. Rekling.—p. 116.

Antisyphilitic Treatment During Pregnancy.—Kristjansen's results are based on 118 cases. The age of the patients ranged from 16 to 39 years. The total dose of neoarsphenamine given varied between 4 and 5 Gm. One hundred and twelve infants were born in an apparently healthy condition. Nine died during the first half year of life. Of the remaining the oldest is now over 5 years of age. Not one has presented syphilitic symptoms or a positive Wassermann reaction.

The Journal of the
American Medical Association
Published Under the Auspices of the Board of Trustees

VOL. 88, NO. 23 CHICAGO, ILLINOIS JUNE 4, 1927

WHY INDUSTRIAL SURGERY IS A SPECIALIZED FORM OF SURGICAL PRACTICE *

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An English physicist has said that medical science is the most backward of all the sciences because it treats the disease but not the man. Sir Berkeley Moynihan has stated that surgical therapeutics is incomplete until everything has been done to restore a man to health. And the late Depage concluded that hospitals could not fulfil their full function until communities recognized that hospitals are not eleemosynary institutions but factories where impaired citizens are repaired and returned to productive labor.

There is much truth in these statements, and much of it has peculiar significance in industrial surgery, because in industrial surgery it is important to treat not only the injured part of the human machine but also the mental apparatus that runs it; to develop the treatment so that it is effective from the beginning to the end, and to have hospitals and surgeons organized to do the best repair work, and, in the shortest time, return the injured man to work.

But the profession is not organized, and it has not given this field of surgery the attention it deserves. It has had more interesting problems to deal with, but it will some day attack this problem with the same intelligence that it has others. The profession is unorganized to meet the demands of modern industry and is cautious of its contact with things commercial. But industry is and must be commercialized. It cannot be otherwise. Nevertheless, both industry and the medical profession have much to learn from each other.

RELATION OF INJURY TO INDUSTRIAL VALUE

Industry has not always been wise in the purchase of medical service, and it has often bought as cheaply as it could without appreciating that what is cheap is often expensive in the long run. But now it is ready to give as expert care to its workmen as to its plant, and is in the market to buy the special medical service it needs. It looks to the profession to sell it, but it does not find just what it wants. At the same time it does not understand that medical practice has been developed to treat and deal with the individual, who has had to take what the profession provided whether its wares were good, bad or indifferent. The transaction was with the individual, and he was the sole judge of the value of the service and whether he got value received. It has to recognize, therefore, that the profession is educated to the individual contract as well as the fact that it does not have the finished product to market. But there is no reason why it cannot be produced and the collective contract be fashioned after the individual contract, if need be.

The profession has something to give and to sell, and to sell to organizations as well as to individuals. Corporations and the carriers are anxious to buy, and to pay well, because they have found that in medical service the best is the most economical. But they look in vain for the men trained and the hospitals equipped to supply the service.

General surgeons of experience devote their attention chiefly to major surgery of the trunk and head, and junior surgeons look on the lesser problems as steps to bigger ones, so that while major surgery is well done, minor and accident surgery is, on the whole, poorly done. It has been neglected and, having been neglected, it offers a promising field for those who would take it up as a life work and become proficient in it.

It is hardly a rash statement to say that there is really no such thing as minor surgery, for an injured hand may be as important to a workman or to a surgeon as a surgical disease of the abdominal viscera. Too many surgeons today are trained in abdominal surgery, in which the treatment is usually short and the surgeon has little control of the function of the part after the operation. This does not train him for the prolonged treatment of limbs whose function is motion and over which the surgeon has considerable control. I would prefer, in case of need, to have an injured limb treated by an expert industrial surgeon, and I would expect more personal care throughout, more intensive attention to details, and quicker recovery of function. The industrial surgeon has the vision and feels the necessity for results measured in terms of use, whereas to others the vision is often limited to the satisfactory healing of the injured part and they do not feel the same necessity for anything beyond this. Many men with broken limbs have been discharged when union is complete and have had to work out their own salvation and recovery of function; and what does it profit a man to have perfect repair of a fracture if he cannot use his limb?

One can hardly wonder that those who are carrying the liability for the care of thousands of injured employees have taken notice of the shortcomings of surgical practice as they find it on the whole throughout the country—an indifference to this kind of surgery, and a wide variation in the methods employed, the results obtained and the time consumed in the treatment.

In a country like this, the annual cost of the casualties in the ranks of the army of American workmen in dollars and cents has reached startling figures, and those who foot this bill are aware of the fact that this enor-

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* Read before the Surgical Corps of the Lehigh Valley Railroad Company at the Pennsylvania Hotel, New York, Feb. 26, 1927.

mous charge against industry can be appreciably reduced. So, after all, it may be the dollars and cents of trade which will be the spur to the medical profession to provide the service which will best serve the injured man and effect this economy. And with it comes the natural and just demand, and the right, of invested money to examine and test the quality of the service for which it pays.

There are many new and distinctive problems which present themselves to the industrial surgeon, which have received little attention in surgical teaching.

There is the problem of treating the man and not just his injured limb. How often it happens that treatment is limited to the trauma and the man allowed to think for himself or his pessimistic friends to think for him. The picture is common of the man who acquires the fixed idea that he is crippled for life, acquired from somewhere or some one, usually a friend, sometimes from a nurse or his physicians. And when acquired it is difficult to remove.

How important then in industrial surgery, in which the surgeon is dealing with a healthy man with an active mind whose chief concern is to be restored to full capacity for work, to exercise a little psychologic as well as surgical skill. The attitude of the average man quickly changes when the nature of his injury and its probable result has been frankly explained. The early inoculation of an optimistic idea is surprisingly effective in warding off pessimistic attacks. Many an insurance adjuster and compensation commissioner can testify to the importance of this, and frequently wonders why it is not more universally recognized as part of the treatment.

RELATION OF DEFORMITY TO DISABILITY

Another interesting subject is the relation of deformity to disability, a subject which has barely been touched, but one which offers a field of fruitful study. It has been said that function precedes and determines form, and that function is more important than form, despite the theories of posture and the worship of anatomic instead of biologic standards. Practically speaking, minor deformities are of no importance if the part functions properly. A moderate fracture deformity in a leg is no more important than a crooked nose, if both function properly. It is then a matter only of appearance, and the operative treatment of either is cosmetic surgery. And yet much of surgical treatment is cosmetic surgery, based on the idea of correcting form, and not based on the relation of form to function.

How are we to explain why certain injuries and deformities result in little or no disability while others show the reverse? Why is it that a simple sprain of the sacro-iliac joint is so disabling, while multiple fractures of the pelvis often do not result in any disability? How is it that a comminuted fracture of the head of the humerus with deformity, even in old persons, if mobilized instead of immobilized, will recover nearly full function, while a slight deviation in the relation of the articular surface of the radius to the shaft in Colles' fracture causes so much disability of the wrist and hand?

Different motor parts of the skeleton have different potentials of function and different factors of safety. Of these only too little is known. Some joints are potentially weak and others strong. The shoulder girdle is strong in the giant ape but weak in man, who uses it chiefly in the dependent position, and its factor of safety is low. It is also a part in which fracture deformity usually results in little or no disability. In the treatment of such a fracture, then, it is important to preserve motion and ignore deformity. Again, prolonged immobilization of the hip, even in fractures, is followed by surprisingly free motion, while the use of the same procedure for the knee means stiffness for a distressingly long time.

A limb is a motor and its function is motion. Like other organs, function is necessary if all the active processes within the part are to be kept in a state of efficiency. But unlike other organs it can be handled and its function more or less controlled, and unlike other organs it can be immobilized. Being a motor it should be treated as such and not as a piece of stationary furniture, and as its normal state requires motion it should be immobilized only when necessity demands it, because in trauma function promotes the process of repair, and the removal of exudate and the débris of trauma. Only slight motion is necessary to preserve the physiologic processes, to keep up the pump action of the muscles on the blood and the lymphatic flow. Such *motion also prevents gliding parts from becoming* agglutinated and preserves muscle function.

Little enough is known about muscle function. There is the elastic property as well as the contractile power. If there is such a thing as muscle balance, it does not give due consideration to the feature of leverage. For example, why is a calf muscle always small when the os calcis is long, and why is the leg of a slim ballet dancer large? Only because the size of a muscle depends on the length of the bone leverage. It takes less power to operate a long lever than a short one. The size of a muscle is determined by the length of its lever, and so-called strong men acquire their large muscles, like the toe dancer, by developing power in positions of short leverage.

Then, again, there is the pathologic function of muscles as well as the physiologic. The latter is under the control of the individual, but he cannot simulate, assume or control the pathologic; and when pathologic function begins the physiologic ceases, as illustrated in the muscle splinting of a fractured bone. This entails the study of pathologic function, for, as Sir Robert Jones has pointed out, the pathologic function in fractures ceases only when the artificial fixation is sufficient to relieve nature of the necessity of splinting, and this rule is a guide to the treatment of fractures, especially treatment by traction.

There still exists some controversy regarding the immobilization and mobilization treatment of fractures, when no reason for conflict exists. It is only a matter of misunderstanding what is meant by the two terms. Strictly speaking, by immobilization is meant immobilization of the fracture surfaces only, and by mobilization is meant movement only of the motor parts. The confusion comes in thinking of immobilization in terms of immobilizing the limb and not the fracture.

Too often is it necessary to immobilize an entire limb in order to hold the fracture ends, but the opposite is illustrated in the treatment of a fracture of the patella by wiring. When this is done so effectively that it is as strong as the normal patella, then almost perfect immobilization of the fracture exists, and there is almost at once no pathologic muscle action (protective spasm) and no inhibition of physiologic function, so that motion returns early. A condition then exists of immobilization of the fracture and mobilization of the motor parts at the same time, and long before the fracture is repaired. This fracture also illustrates another physiologic phenomenon in that return of function is in exact relation to the security of the fixation of the patella, for the motor parts will not voluntarily function until the strength of the patella warrants it. With proper wiring, it is the rule to have nearly full motion restored in from four to eight weeks, and some workmen have returned to heavy labor in that time.

A word might be said in regard to what may be termed the roentgen-ray or internal deformity in distinction to the external or functional deformity Roentgenograms show the bones so clearly that any layman, lawyer or jury can see an obvious fracture displacement. These beautiful pictures show the internal deformity, and the record is in black and white. With this irrefutable evidence in front of him and subject to the scrutiny of others, the surgeon naturally feels both the stimulus and the obligation to effect a perfect replacement, to work on the principle of form instead of function, and it is not easy to be satisfied with an imperfect correction. Surgeons have gotten over the stampede of plating fractures, but not over the desire to correct many fracture deformities which do not require correction. On account of the exactness of the roentgen-ray exhibits, the surgeon is on the defensive if he has not completely corrected the deformity, and he is naturally proud when the pictures show a perfect replacement. The desire to obtain such results is justifiable when it is not gratified at the expense of the patient or of the best interests of surgical practice. Even now operations are done to correct deformities which show only in the picture but not on the surface of the limb, and on limbs which function perfectly. Such operations are not justifiable, for no one wants unnecessary surgical treatment.

Too much emphasis has been put on the roentgen-ray deformity, with the result that the layman and the courts have an exaggerated idea of the importance of pictures alone. Too little attention has been given to the differentiation of fracture deformities which usually result in disability, and those which do not. Some one has said that only 10 per cent of all fractures are accurately and exactly replaced, and too little effort has been made by physicians to educate their patients and the public as to the difference between roentgen-ray and functional deformities, and the importance of function over internal form. The emphasis should be put on roentgen-ray deformities only when the surgeon has failed to correct a deformity which should and could have been corrected to prevent disability, and the distinction should be made between avoidable and unavoidable deformities.

Another problem of industrial surgery is the demand for the appraisal of injured limbs and injured men, the victims of the hazards of industry. This is a new problem to surgeons, because they have not been accustomed to appraise disability in the human machine from disease or injury in any terms except fitness or unfitness for insurance or labor risks. No standards of measurement have been established, and for this reason the problem is still speculative.

A man may be considered as simply a standard machine, which performs the functions common to all, without any consideration of his occupation, which may be called specialized function, requiring special efficiency and training of a part, such as the foot of a structural steel worker, the back of an iron molder, the hand of a tool maker, or the shoulder of a paper hanger. This is measuring to a standard pattern for the man who has to use his arms and legs to earn his living, in contrast to the man who uses his brain, but without considering which particular part is most essential to his particular work.

The laboring man can also be measured in terms of specialized function—in terms of the market value and productive capacity of his special work—for the ambitious man has made the effort to train himself for a skilful service and for better earning power, and he is worthy of extra consideration. A disability which would not affect one worker might debar another from his trade, and a minor injury to one man might be a major one to another. Many men, on account of a minor injury, are forced to sacrifice a good job for a poor one without adequate compensation.

MINOR SURGERY

Just a final word in regard to minor surgery, for minor surgery is worthy of more respect than we have been accustomed to give it. Like a precancerous lesion, a minor injury may become a serious affair. It is still common practice to treat hand injuries too lightly; to do fair or even excellent surgery of the wounds but to overlook the functional treatment; to magnify the anatomic and neglect the physiologic; to let the man walk the streets with his hand nicely bandaged while the exudate becomes stagnant and then organized, and the motor parts lose their elasticity. How much better, how much quicker and more complete the recovery if the man is hospitalized, a large dressing applied which gives free motion of all the fingers, the hand elevated, and immediate active motion begun, even after tendon suture. Active motion can do no harm, because the motion cannot go beyond the point of pain, the point of automatic control, and motion with elevation is ideal for internal drainage. Hands so treated show a marked contrast in appearance and function to hands and fingers which otherwise remain swollen for a long time with an unnecessary degree of residual disability.

SPECIALISTS

It may be said that in every form of human activity the law of supply and demand has developed specialists in engineering, mechanics, law, finance, insurance, manufacture, much more so than in medicine, which has resisted specialization. But notwithstanding this resistance, specialization has been inevitable. Not only are there recognized specialists, but the general surgeon and physician, consciously or unconsciously, is often a specialist after a fashion, because of his peculiar proficiency and skill in a certain field. In the profession it is generally known that there are surgeons who do certain operations especially well, and among specialists are those who confine their work to only a small field. It is the surgeon or physician in a small community who still remains unspecialized by force of circumstances.

In every section of this country there are specialists in nearly every field of medical practice except industrial surgery. And yet such men are badly needed—men who are properly trained and are devoting their efforts entirely to industrial surgery. The large industrial centers, the large cities, every sizable community, every large general hospital, every industrial compensation board and the insurance carriers need such men. How much better they could do the work. How much they would relieve the general practitioner, the general surgeon and the orthopedic surgeon of a service which the latter cannot effectively perform; and how much better if they were relieved of the obligation.

INDUSTRIAL SURGEONS

There are a handful of men, so to speak, who are the real industrial surgeons of this country today. They are the pioneers, the ones who have shown the way; but for the most part they serve individual corporations. They are like the other officers of the large industries which can command the services of one or more surgeons as they would other experts. But they do not constitute a profession of industrial surgery which can offer its services, not to one, but to different corporations, large or small.

Heretofore individual industries have employed full-time or part-time surgeons, but there has been little effort on the part of industry to cooperate to make a common demand on the medical profession, and there has been little effort on the part of the profession to organize a profession of industrial surgeons which can offer its services to all corporations both large and small and remain free and independent to serve one or many, not as officials, but for services rendered. This would be to the advantage not only of small corporations but also of the large ones, because they would have a wider field to draw from, and it is to the advantage of the profession because it can then serve all alike. There can be no thoroughly representative profession of industrial surgeons as long as it is limited to those who represent chiefly the large corporations. It is not the individual industries which should develop industrial surgeons but the profession which should develop surgeons to serve all industries, collectively and individually.

This is a field of practice which offers many possibilities. It is still the field of the pioneer, the man who sees new fields to conquer, a new field of service; and he has something to teach those who practice in the older and more settled fields of medicine.

Medical Building.

THE "ACID TEST" IN GASTRIC AND DUODENAL ULCER

CLINICAL VALUE OF EXPERIMENTAL PRODUCTION OF THE TYPICAL DISTRESS *

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In a study of the mechanism of ulcer pain previously reported,[1] it was found that, under proper conditions, typical ulcer distress could be produced by introducing into the empty stomach dilute solutions of hydrochloric acid. Gradually this procedure was standardized into a test which is literally "the acid test." My purpose in this paper is to describe it further, set forth its merit, and define its limitations as nearly as is possible at present.

In 1909, Bonninger[2] reported that the distress of gastric ulcer could be initiated regularly by the introduction of 200 cc. of tenth normal hydrochloric acid into the empty stomach. This work was overlooked, apparently, by most investigators. Other attempts, notably by Boring[3] and Hurst,[4] to produce distress both in normal stomachs and in the stomachs of patients with gastric and duodenal ulcer by the injection of varying amounts and concentrations of hydrochloric acid, were uniformly unsuccessful. Reynolds and McClure[5] poured acid directly onto a duodenal ulcer by means of a Rehfuss tube without producing distress.

TECHNIC

The test that has been evolved is conducted as follows: If it is to be made at a time when the stomach is thought to contain food, this should be removed through an Ewald tube. A Rehfuss tube is then swallowed by the patient, and suction is made on the syringe in order to make sure that the stomach is completely empty. Any ulcer distress that may have been present is usually gone by this time. If distress continues, the stomach may be washed through the Rehfuss tube, plain water or alkaline solutions being used. As a rule, emptying the stomach is sufficient in itself to relieve the pain, although in cases with a rapid and high grade gastric secretion, repeated emptyings may be necessary. Distress that cannot be relieved by emptying the stomach or by continued alkalization over a period of an hour is almost never ulcer distress. When the patient is free from distress and the stomach empty, one proceeds to the test and introduces through the tube 200 cc. of 0.5 per cent hydrochloric acid. (This may be made up approximately by using 15 cc. of concentrated hydrochloric acid, i. e., from 35.4 to 37.5 per cent, to 1,100 cc. of tap water.) If no pain develops, another 200 cc. is given thirty minutes later, followed, if necessary, by a third 200 cc. at the end of the hour, making a total of 600 cc. The period of observation is usually an hour and a half, and if the patient's typical distress is not reproduced during this time, the test is considered negative. If distress does arise, it is relieved as soon as is deemed desirable by emptying the stomach.

TABLE 1.—*Effect of Injection of Five-Tenths Per Cent Hydrochloric Acid in Control Group*

Number studied	30
Pain produced	0
Slight burning	1
Nausea	7
Vomiting	4

The patient should be told merely that he is to keep the observer informed of the appearance or disappearance of his typical distress. He should not be told that the acid is likely to produce pain.

EFFECT IN NORMAL STOMACHS

The effect of the injection of 0.5 per cent hydrochloric acid into normal stomachs may be judged from table 1. Thirty patients with presumably normal stomachs were given 200 cc. of hydrochloric acid through a Rehfuss tube, the stomach being otherwise empty, and the effect was observed for thirty minutes. If no sensations were noted by the patient, another 200 cc. was given and the period of observation extended for thirty minutes. At the end of the test period of one hour, the stomach was emptied. In seven of the thirty patients, nausea was noticed; vomiting occurred in four; and a sensation of epigastric burning or warmth was observed in only one. In later work, the impression was gained that mild epigastric burning or a sensation of warmth occurred rather more frequently than was noted in this series. The nausea and vomiting were attributed to acid irritation of the duodenum as a result of the rapid emptying of the stomach. It has been found that either chemical or mechanical irritation of the duodenum is very likely to produce nausea and vomiting.

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* From the Seymour Coman Fellowship in the Department of Physiology of the University of Chicago, and the Cook County Hospital.

[1] Palmer, W. L.: The Mechanism of Pain in Gastric and Duodenal Ulcer, Arch. Int. Med., to be published.

[2] Bonninger: Berl. klin. Wchnschr. 46: 396, 1909.

[3] Boring: Am. J. Psychol. 26: 48, 1915.

[4] Hurst, A. F.: The Sensibility of the Digestive Tract, London.

[5] Reynolds, L., and McClure, C. W.: Motor Phenomena Occurring in Normal Stomachs, in Presence of Peptic Ulcer and Its Pain, as Observed Fluoroscopically, Arch. Int. Med. 29: 1-11 (Jan.) 1922.

EFFECT IN CASES OF GASTRIC OR DUODENAL ULCER

When made under the proper conditions, similar injections into the stomachs of patients with gastric or duodenal ulcer may initiate the typical ulcer distress, as is illustrated in the following protocol:

	G. M., July 31, 1926. Duodenal ulcer. Some pain last night.
6:30 a. m.	Stomach emptied; 88 cc. of milky liquid; free acid, 12; total acid, 21.
6:35 a. m.	200 cc. of 0.5 per cent hydrochloric acid.
7:05 a. m.	200 cc. of 0.5 per cent hydrochloric acid.
7:35 a. m.	200 cc. of 0.5 per cent hydrochloric acid.
7:45 a. m.	Mild pain appears, typical in type and location.
8:05 a. m.	Stomach emptied; 720 cc. of clear liquid. Free acid, 95; total acid, 104. Pain relieved immediately.

If no pain had resulted, the stomach would have been emptied at the end of the third half hour period and the test considered negative. On the other hand, if pain had appeared following the first injection, it would have been allowed to continue only long enough to ascertain with as much certainty as possible the fact of pain and of its identity as the patient's typical ulcer distress. This having been done, the distress would have been relieved by emptying the stomach as illustrated in the following protocol:

	E. H., July 6, 1926. Duodenal ulcer. Slight pain last night.
8:45 a. m.	Stomach emptied; 40 cc. of cloudy liquid, no free acid present.
8:50 a. m.	200 cc. of 0.5 per cent hydrochloric acid.
9:05 a. m.	Typical distress appears.
9:20 a. m.	Stomach emptied; 215 cc. clear liquid; free acid, 110; total acid, 115. Pain relieved immediately.

CONDITIONS ON WHICH THE TEST IS DEPENDENT

The conditions on which the test is dependent may be thus enumerated:

1. *Sensitiveness of the Pain-Producing Mechanism of the Ulcer.*—It is well known that ulcer patients frequently have periods when they are free from pain on a full diet. These pain-free periods may be of brief duration, twenty-four hours or so, but at such times the test is usually found to be negative.

2. *Opening of the Pylorus in Case the Ulcer is Postpyloric.*—At times the pylorus will remain closed during the entire test period, and hence no pain results even though the ulcer is sensitive.

3. *Rapid Regurgitation of Bile into the Stomach.*—This may protect the ulcer, particularly if duodenal, from the effect of the acid.

4. *Nausea and Vomiting.*—The test may be prematurely concluded in this way before pain has appeared.

5. *Mentality of the Patient.*—The subject must be of sufficient intelligence to be able to recognize his pain, to identify it as, or differentiate it from, his typical distress, and to describe it to the person conducting the test.

OPTIMAL CONDITIONS

The best time to conduct the test is immediately after an attack of spontaneous distress has been relieved by emptying the stomach, preferably with an Ewald tube. The Rehfuss tube may then be swallowed and the acid test carried out. If pain results from the first 200 cc., the acid may be withdrawn and the pain relieved, as is illustrated in the following protocol:

	H. S., April 21, 1926. Duodenal ulcer.
10:43 a. m.	Pain present. Stomach emptied; Ewald tube; 25 cc. of cloudy liquid; free acid, 22; total acid, 34. Pain relieved at once.
10:48 a. m.	Rehfuss tube swallowed, no gastric content obtained.
10:50 a. m.	200 cc. 0.5 per cent hydrochloric acid through Rehfuss tube. Pain appears at once.
10:58 a. m.	Pain more severe. Stomach emptied; 200 cc., clear liquid; free acid, 148; total acid, 152.
11:05 a. m.	Pain entirely gone.

Frequently pain will not appear until after the second or third injection. The process may be repeated as many times as is necessary to assure the experimenter that the pain is bona fide pain and not merely a psychic reaction. If any doubt exists, water may be substituted for acid.

CAUSES FOR ERROR

It must not be forgotten that the test is both an objective and a subjective one. Great care must be exercised in the interpretation of the patient's sensations. A mild transient epigastric burning or sensation of warmth may have to be disregarded. Intestinal cramps occasionally result from the rapid exit of acid into the intestine, and these must be disregarded. This is especially likely to occur if a functioning gastro-enterostomy is present. It is the patient's typical ulcer pain which is of significance and which should be looked for. It may at times be slightly atypical, going through to the back or around under the costal arch. It should disappear within a few minutes (seldom over thirty) after the stomach is emptied or the acid neutralized. If the ulcer is in a pain-free period, as is evidenced by the absence of spontaneous pain, or if in a case of duodenal ulcer the pylorus fails to open, or if there is very rapid regurgitation of bile, or if nausea and vomiting appear, the test is likely to be negative. Occasionally the proper conditions seem to be present, and yet the test is still negative. For these reasons, very little reliance is to be placed on a negative test, but a definitely positive one is of real significance. It cannot be done in a hurried fashion, and it is not adapted to the work of large clinics; but the patient, careful worker will find the test very valuable.

EFFECT IN CARCINOMA OF THE STOMACH

The acid test has been found to be positive in certain cases of gastric carcinoma, but not with the same frequency as in benign ulceration. The positive cases are usually ones in which free acid is present and in which the free acidity is a factor in the pain.[1]

EFFECT IN EXTRAGASTRIC CONDITIONS

The test has been found to be uniformly negative in the following extragastric conditions: tabetic crisis, acute and chronic cholecystitis with cholelithiasis, cholangeitis with jaundice, cirrhosis of the liver, tuberculous peritonitis, acute enteritis, suppurative colitis, functional bowel distress, and neurasthenia. In those cases in which pain was present at the beginning of the test, it was not relieved by emptying the stomach, and *it was not altered by the acid injections.*

SUMMARY OF RESULTS

Table 2 is a summary of the results obtained so far. The patient's typical distress was produced in 177 cases, eleven of which were carcinomas. Of the remaining 166, there was roentgenologic evidence of ulcer in 161, or 97 per cent. In the five cases with negative roentgen-ray observations, the history, laboratory data and clinical course justified the diagnosis of ulcer. There were twenty-six ulcer patients and four carcinoma patients in whom the typical distress was not produced by the acid injection, but many of these tests were made in pain-free periods. The number of positive tests totaled 743, twenty-two of which were in carcinoma patients and 721 in ulcer patients. The failures may be divided into those occurring during the distress period, that is, when there had been spontaneous ulcer distress within the preceding twenty-four hours, and those occurring in a distress-free period. The failures in a distress period are relatively few, twenty-nine in all, twenty-seven of which were in ulcer patients. They are in part accounted for by the failure of the pylorus to open or by the rapid regurgitation of duodenal content, but in certain cases the cause of the failure is not apparent. The 425 failures during a distress-free period consist largely of tests made during the course of treatment of patients who had been acid sensitive at the beginning.

VALUE DURING THE COURSE OF TREATMENT

The relationship of the pain-producing mechanism of the ulcer to the healing process cannot be considered in detail at this time. In my experience, a persistently positive acid test indicates a persistently open ulcer. Others may feel that a scar may be sensitive to the acid test, but there has been no evidence of this in the work so far. Occasionally months of treatment may be required before an ulcer becomes insensitive to the acid test, but usually it is a period of only a few days or weeks. It cannot be assumed, however, that a persistently negative acid test betokens a complete healing of the ulcer, for desensitization may occur while the ulcer is still relatively large and far from healed. It must also be borne in mind that during a course of antacid treatment a carcinoma may become painless and insensitive to the acid test.

Table 2.—*Summary of Results of Acid Test*

	Roentgen Ray	Number Patients Pain Produced	Number Patients No Pain Produced	Number Positive Tests	Failures	
					Distress Period	Distress-Free Period
Duodenal	+	119	16	523	23	365
Gastric	+	33	8	150	3	40
Multiple	+	4	..	19	..	7
Recorded after gastroenterostomy	+	5	2	10	1	1
Peptic	0	5	..	19	..	5
Total	..	166	26	721	27	421
Carcinoma	+	11	1	22	2	1
Grand total		177	30	743	29	425

CONCLUSIONS

1. The "acid test," under the proper conditions, is usually positive in cases of gastric and duodenal ulcer, and in certain cases of gastric carcinoma.

2. A negative test does not necessarily exclude the presence of these lesions.

3. The test has been negative in all cases studied so far which did not involve an ulcerative lesion of the stomach or adjacent duodenum (or jejunum in case of gastrojejunal ulcers).

4. The test is not infallible, but when properly done it possesses a high degree of reliability.

5. During the course of treatment the test is of value in that when persistently positive it betokens, in my experience, a persistently open ulcer, whereas an invariably negative test is compatible with, but not necessarily indicative of, healing.

THE VALUE OF OSCILLOMETRY

IN THE STUDY OF THE CIRCULATORY DISTURBANCES OF THE EXTREMITIES

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In a comprehensive study, Matas,[1] in 1914, summarized the various methods that had been advocated for the measurement of arterial circulation in the extremities. In addition to the tests of Quénu and Muret, Delbet, Henle-Coenen, von Frisch, Korotkow, Tuffier and Hallion, Stewart and Moskowicz, Matas described a test for the detection of collateral circulation after occlusion of a large vessel of an extremity. To this list may be added the method of Brooks and Jostes,[2] which depends on the use of the thermocouple and galvanometer. This method, however, is neither simple nor practical enough for routine examinations. Recently, Stern and Cohen[3] have reported interesting observations with the use of the intracutaneous salt solution wheal test of McClure and Aldrich.

In the present communication I wish to call attention to a method which has been used by a number of investigators in France, but which has not yet been sufficiently appreciated in America. The apparatus (oscillometer of Pachon[4]) is of value either for estimating blood pressure or for detecting the level and degree of arterial obliteration in an extremity through readings of the oscillometric index. The oscillometer is constructed as follows:

E is a rigid, hermetically sealed metallic box containing an aneroid capsule, *c*. *B* is the cuff consisting of two overlapping distensible rubber bags covered by a heavy burlap jacket on their outer surfaces. The cuff, *B*, communicates with the chamber, *E*, by way of two channels, *b* and *f*. A hand-pump, *P*, is used for inflating the entire system to any desired pressure, which is measured by the manometer, *M*, in centimeters of mercury. This pressure can be reduced at will by releasing the escape valve, *V*. It is thus seen that the pressure within the capsule, *c*, is at all times equal to the pressure within the chamber, *E*, since *c* and *E* communicate through the channel *f*. *S* is a cut-off arrangement by means of which the system *c*, *b*, *a*, *B* can be completely shut off from the large chamber system, *E*. By this maneuver the variations in pressure set up in the cuff, *B*, by the rhythmic variations in volume of the segment of the limb under compression are transmitted *only* to the aneroid capsule, which in turn transmits its variations to the needle *l*.

The oscillometric index, as given by the amplitude of the excursions of the needle, is a measure of the

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[1] Matas, Rudolph: Testing the Efficiency of the Collateral Circulation as a Preliminary to the Occlusion of the Great Surgical Arteries, J. A. M. A. **63**: 1441 (Oct. 24) 1914.

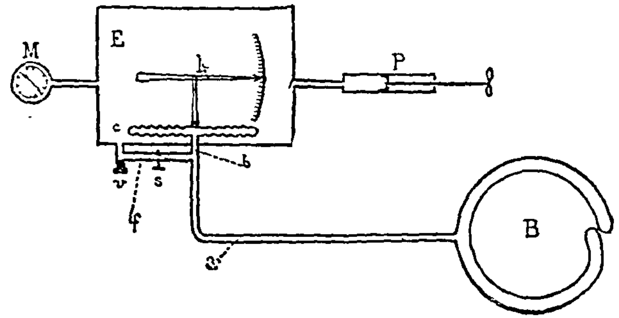
[2] Brooks, Barney; and Jostes, F. A.: A Clinical Study of Diseases of the Circulation of the Extremities: Description of a New Method, Arch. Surg. **9**: 485 (Nov.) 1924.

[3] Stern, W. G., and Cohen, M. B.: The Intracutaneous Salt Solution Wheal Test, J. A. M. A. **87**: 1355 (Oct. 23) 1926.

[4] Pachon: Sur la méthode des oscillations et les conditions correctes de son emploi en sphygmomanométrie clinique, Compt. rend. Soc. de biol. **66**: 733, 1909; Oscillomètre sphygmométrique a grande sensibilité et a sensibilité constante, ibid. **66**: 776, 1909.

cardiac impulse, and conforms to the total pulse of the segment of the limb under investigation. I am interested here in the latter phase, and consider oscillometry to be of considerable value in the study of the circulatory disturbances of the extremities. It enables one to detect minute changes in the sum total of pulsations of the arteries in any given segment of the limb, and thus yields data as to the extent of circulatory impairment. It is also of use in estimating the value of various forms of therapy employed to improve circulation in an extremity, in investigating the development of collateral circulation and as a means of differentiation between organic occlusion and spasm of the peripheral arteries.

I use the following technic for carrying out a complete test of the circulatory status of the extremities: With the patient in the reclining position and completely relaxed so as to eliminate false movements of the oscillatory needle due to muscular contraction, the cuff is first applied to the upper extremity as high up on the arm as possible. The medium-sized cuff is used. Readings are then made and compared with those obtained in the opposite limb at the corresponding level.



Oscillometer designed by Pachon.

A second reading is taken at a lower level on the arm, just below the elbow, a third reading at the wrist, and a fourth across the palm of the hand. For the latter examination I have designed a small cuff measuring 2 by 9 inches and encased in a silk jacket. This cuff is also useful in obtaining readings below the ankle level. Normally, the oscillometric index decreases toward the periphery of the extremities.

In the examination of the lower extremities, readings are taken as high up on the thigh as possible and just above the knee. For the leg, three levels are read: just below the knee, at the middle third of the leg, and just above the ankle. An additional reading is then made across the foot, the smaller cuff being used for this purpose. All readings should be made at a uniform pressure for each case, which usually means the systolic blood pressure, at which point maximal oscillations of the needle are usually observed.

Figures obtained in a large number of normal persons examined by Heitz[5] coincide with the readings I have noted in a large number of "normal" persons. Normal readings for the arm range as follows: upper portion of the arm, from 4 to 20; elbow, from 2 to 12; wrist, from 1 to 10; palm, from very faint to 2; thigh, from 4 to 16; upper third of leg, from 3 to 12, and ankle, from 1 to 10. In addition, I have found that the normal oscillations for the pedal circulation (plantar and tarsal) may vary from less than 0.5 to as much as 2.

With the usual method of palpatory examination of the arterial circulation in the lower extremities, one is limited to only four points at which the larger vessels are so placed that it is possible to feel their pulsation. The vessels that can thus be studied are the femoral artery in the groin; the popliteal artery at the knee; the posterior tibial artery at the ankle, and the dorsalis pedis artery on the dorsum of the foot. The inadequacy of this method is apparent when it is realized that the territory between the groin and knee, and knee and ankle is inaccessible to palpatory examination. Another deficiency in this procedure is the difficulty in detecting quantitative differences in pulsation, except in a crude way, between the corresponding vessels of each extremity. In oscillometry, there is at one's disposal a procedure by means of which the pulsation of arteries can be observed at practically any level from the base of the toes to the groin, and by means of which minute changes in the amplitude of oscillation can be numerically studied and recorded for comparative quantitative observation.

When absolute occlusion of both the dorsalis pedis and posterior tibial arteries is found in any one foot, there will, of course, always be complete absence of deflection of the oscillometer needle when the small cuff is applied around the foot below the level of the ankle. When pulsation is absent in only one of these vessels, the oscillometric index across the foot will vary in proportion to the extent of involvement of the plantar vessels, which are inaccessible to palpatory examination. Closure, for instance, of the dorsalis pedis and pulsation of the posterior tibial can be assumed, with, however, obstruction of the more distal distribution of the posterior tibial. This will mean involvement of the plantar arteries. In this instance, oscillometric examination will give a zero reading across the foot. When, however, the dorsalis pedis alone is impalpable and the posterior tibial and plantar arteries are open, there may be a very faint deflection of the needle. The same conditions of impalpable dorsalis pedis with positive deflection of the needle may occur in the absence of any organic disease of the vessels. In such a case, failure to find the pulsating artery may be explained on the basis of an anomalous course pursued by the vessel, rendering it inaccessible to ordinary palpation. In the consideration of the cases of true arterial occlusion, the importance of the symptoms related by the patient must not be neglected, nor must the clinical signs that may be elicited, such as ischemia and reactionary rubor, be overlooked. These signs are of considerable importance in the diagnosis of incipient disease of the arteries. The use of the oscillometer in the diagnosis of early stages of arterial disease will form the subject of a future communication.

Oscillometric Readings *

	F_1	F_2	Po	C	A	Pe
Right	6.0	4.0	1.5	VF	0	0
Left	6.5	4.0	3.5	3.0	2.0	VF

* For the sake of uniformity in recording oscillometric observations, we have adopted the following scheme in our hospital records. F_1 and F_2 represent upper and lower femoral readings. Po corresponds to popliteal region, C to calf, A to the ankle region, Pe to the pedal circulation.

In a patient presenting the signs of closed dorsalis pedis, posterior tibial and popliteal arteries in one extremity, the oscillometric observations will vary, depending on the extent of occlusion of the larger vessels. If the obstruction in the main vessels is complete distal to the popliteal, deflection of the needle at all levels below the knee may not be expected. If, on the other hand, there is only partial obstruction in the larger vessels, a diminution in the oscillometric index will be found.

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[5] Heitz, J.: L'étendue comparée des oscillations fournies par l'appareil de Pachon sur les differentes artères des membres chez le sujet normal, Arch. d. mal. du cœur. 9: 14 (Jan.) 1916.

It would perhaps be well at this point to cite a case illustrating the comparative observations as obtained with the palpating finger and with the oscillometer. The oscillometric readings given in the accompanying table were obtained in a typical case of thrombo-angiitis obliterans.

In this case, although it was impossible to palpate the right popliteal artery, the oscillometer, at this level, showed distinct arterial pulsation with an index of 1.5. It is significant, however, to note that this index is decidedly less than that obtained in the corresponding segment of the opposite normal limb. Again, the test through the calf of the right leg (C) reveals that pulsation is present, though diminished at this level. The significance of the zero readings will be emphasized at this point. I can recall numerous cases of thrombo-angiitis showing complete absence of deflection of the needle over a considerable extent of the limb, yet without signs of gangrene, such as one would expect were there absolute lack of arterial circulation. In such instances it must be assumed that the arterial flow, whether through the canalized vessels or through the newly formed collateral circulation, consists of a seepage or ooze, rather than an actively pulsatile current. This illustrates one of the physical shortcomings of the instrument, as the latter does not record the status of the circulation in the stages between the zero of the instrument and the state of total cessation of arterial current.

The neurogenic forms of arterial disease, which include all of the pure vasomotor disturbances of the peripheral vessels, have been studied extensively by French investigators, who utilized the material furnished by the large number of such cases encountered during the World War. The differentiation of this form of arterial disease from organic occlusive lesions is sometimes very difficult. The studies of Babinski and Heitz,[6] and of d'Œlsnitz and Cornil[7] are of importance in this connection. The former investigators observed that immersion of a limb in a warm bath for a period of ten minutes produced a marked increase in the oscillometric index in cases of vasomotor spasm, while change in the index was not evident after this procedure in true occlusive lesions. The same results were obtained by d'Œlsnitz and Cornil with the employment of a tourniquet applied to the limb for a period of about five minutes. On release of the tourniquet, a marked increase in the oscillometric index was observed in the pure vasomotor cases, but not in the instances of organic vascular occlusion.

CONCLUSIONS

1. The oscillometer is a valuable adjunct in the study of the circulation of the extremities.
2. A patient in whom some circulatory disturbance of the extremities is suspected should have a complete oscillometric examination as part of the general physical investigation.
3. The oscillometer is of value in the diagnosis of early occlusive disease of the peripheral arteries.
4. The differentiation of neurogenic from organic arterial disease is facilitated with oscillometric studies.
5. The progress of arterial disease in the extremities can be studied quantitatively by the use of the oscillometer at regular time intervals.
6. There are certain physical limitations in the instrument, such as its inability to select any one vessel for study and its insensitivity to that state of the circulation represented as lying between the zero of the instrument and the total cessation of arterial onflow.

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[6] Babinski, J., and Heitz, J.: Oblitérations artérielles et troubles vaso-moteurs d'origine réflexe ou centrale, Bull. et mém. Soc. méd. d. hôp. de Paris **40**: 570, 1916.

[7] D'Œlsnitz, M., and Cornil, L.: Etude oscillométrique des réactions vaso-motrices d'un segment de membre après compression a la Bande d'Esmarch, Compt. rend. Soc. de biol. **82**: 146, 1919.

THE USE OF EPHEDRINE IN BRONCHIAL ASTHMA AND HAY-FEVER

ITS EFFECTS IN FIFTY-NINE CASES AND IN ELEVEN CASES, RESPECTIVELY *

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In August, 1925, one of us[1] published the first case reports on the use of ephedrine in bronchial asthma, giving the data from seven cases, in six of which the results were definitely beneficial. Subsequently,[2] in March, 1926, reference was made to a group of thirty-six cases, in 72 per cent of which decidedly favorable action had been obtained. More recently, Thomas[3] and MacDermot,[4] each having observed the effects of this alkaloid in twenty asthmatic persons, have reported equally encouraging results. Previous to these clinical studies, Chen and Schmidt,[5] as a result of their experimental work with the drug, had predicted a favorable clinical action, but had not made any tests on patients.

As an outgrowth of these satisfactory clinical experiences in cases of asthma, it was anticipated by analogy that ephedrine, like epinephrine, might be equally effective in hay-fever, and we very soon found this to be true. Gaarde and Maytum[6] have been the first to report on the action of the drug in this disease: in twenty-six cases they secured complete or almost complete relief in thirteen, partial relief in five, and an entire absence of effect in eight.[7]

In this paper we will deal, in the first place, with a series of fifty-nine cases of asthma, including the thirty-six previously reported on by Miller,[2] and, secondly, with a group of eleven cases of hay-fever.

BRONCHIAL ASTHMA

The general physiologic actions of ephedrine and the reasons for expecting it to be effective in cases of bronchial asthma have been covered in the publications referred to, and it is our purpose here merely to give the results in our series of cases, and at the same time to indicate the response that may be expected in various types of diseases, as suggested by our work.

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[1] Miller, T. G.: A Consideration of the Clinical Value of Ephedrine, Am. J. M. Sc. **170**: 157 (Aug.) 1925.

[2] Miller, T. G.: Ephedrine—Its Use in the Treatment of Vascular Hypotension and Bronchial Asthma, Ann. Clin. Med. **4**: 713-721 (March) 1926.

[3] Thomas, W. S.: Ephedrine in Asthma, Am. J. M. Sc. **171**: 719 (May) 1926.

[4] MacDermot, H. E.: The Use of Ephedrine in Bronchial Asthma, Canad. M. A. J. **16**: 422-423 (April) 1926.

[5] Chen, K. K., and Schmidt, C. F.: The Action of Ephedrine, the Active Principle of the Chinese Drug Ma Huang, J. Pharmacol. & Exper. Therap. **24**: 239-257 (Dec.) 1924.

[6] Gaarde, F. W., and Maytum, C. K.: The Treatment of Hay-Fever with Ephedrine, Preliminary Report, Am. J. M. Sc. **172**: 588 (Oct.) 1926.

[7] We have used ephedrine in one case of angioneurotic edema, and in three cases of serum sickness with urticaria. The results in all of these were as favorable as those obtained in other patients from epinephrine.

The ephedrine employed was secured from Prof. B. E. Read's laboratory at the Peking Union Medical College, and was prepared in accordance with the technic described by Chen.[8] The doses used and the method of administration, as well as the age and sex of the patients, the duration of their disease and certain other data, are included in the tables.

The cases are classified according to etiology and include the following groups: allergic, infectious and reflex nasal. Under the heading of allergic are included those cases in which specific sensitivity can be demonstrated, and in which actual contact with the offending substance produces characteristic symptoms. By infectious is meant that type in which infection, in the paranasal sinuses or elsewhere, is found, and in which its elimination produces some appreciable measure of relief. By reflex nasal is meant that type in which nasal examination reveals hypertrophy of the turbinate bones, usually the middle ones, in firm contact, in their posterior portion, with the nasal septum.

TABLE 1.—*Asthma, Allergic Type*

			Duration of Disease, Years	Ephedrine Administered			
No.	Sex*	Age		Amt., Mg.	Oral or Subcutaneous	Relief Obtained	Comment
1	♀	33	1	50	0	Complete	Allergic coryza; sensitive to horse dander, house dust, etc
2	♂	40	2	100	0	Complete	Hay-fever and pollen asthma
3	♂	38	2	100	S	Complete	No tests; history indicative of allergy
4	♂	36	3	50	0	Complete	Sensitive to horse dander, feathers, etc
5	♂	7	6	20	0	Complete	Highly allergic to numerous animal epidermal and food proteins
6	♀	21	7	50	0	Complete	Hay-fever and pollen asthma
7	♂	25	9	50	0	Complete	Hay-fever and pollen asthma
8	♂	42	10	50	S	None	Sensitive to house dust; extreme emphysema
9	♀	37	11	50	0	Complete	Hay-fever and pollen asthma; also allergic to chicken and wheat
10	♂	78	11	50	0	Complete	No tests; history indicative of allergy
11	♂	20	15	50	0	Complete	Hay-fever and pollen asthma
12	♂	36	15	50	0	Complete	Hay-fever and pollen asthma
13	♀	60	18	100	0	Complete	Hay-fever and pollen asthma
14	♀	51	20	50	0	Complete	Hay-fever and pollen asthma
15	♀	23	20	50	0	Complete	Hay-fever and pollen asthma
16	♂	50	21	100	0	None	Hay-fever and pollen asthma
17	♂	35	25	50	0	Complete	Sensitive to horse dander, feathers, etc.
18	♀	33	32	50	0	Partial	Highly allergic to many animal epidermal and food proteins
19	♀	80	62	25	0	Complete	No tests; history of allergy

* In this column, ♂ indicates male; ♀, female.

The effects of ephedrine in the allergic group are shown in table 1. This group comprises nineteen cases, ten of these being examples of pure allergic disease as indicated by the presence of hay-fever and of asthma of the pollen type; six being sensitive, as indicated by skin tests, to other inhaled substances, particularly house dust and the animal danders, and three being regarded as allergic because of a suggestive history, although this was not confirmed by cutaneous tests.

In estimating the results of the administration of ephedrine in all the cases, the relief obtained is designated as complete, partial or none. By "complete relief" is meant a total disappearance of the asthmatic symptoms within a reasonable time after the administration of the drug: between twenty and thirty minutes when orally administered, and slightly sooner when given by hypodermic. Complete symptomatic relief was often obtained despite the persistence of physical signs, although these usually disappeared coincidentally. The terms "partial relief" and "no relief" are self-explanatory.

The youngest patient in this group was 7 years of age, the oldest 80. The age of onset of the disease was of no importance as regards the results obtained. In case 5 asthma began at the age of 1 year; in case 10 it began at the age of 67 years: both patients obtained complete relief from ephedrine. Neither was the duration of the disease of importance in regard to the results obtained from ephedrine: complete relief was obtained in case 1, in which asthma had begun one year before; complete relief was also obtained in case 19, in a patient who had been afflicted for sixty-two years. Of the nineteen patients in the allergic group, sixteen were completely relieved of an asthmatic paroxysm by ephedrine (84 per cent); one was partially relieved, and two failed to obtain any measure of relief: one of the latter having an extreme degree of emphysema, so that he was almost continuously dyspneic, and the other having a very severe case of pollen asthma. With the exception of this last patient, all ten of our patients with pure pollen asthma obtained complete relief (90 per cent).

ILLUSTRATIVE CASES IN THE ALLERGIC GROUP

Miss M. W. (case 9), aged 37, had suffered from hay-fever and pollen asthma for eleven years. For the first eight years her asthma had occurred only during the fall hay-fever season, coming on several weeks after the onset of hay-fever and lasting until early November. For the past three years the asthmatic attacks had developed independently of the seasons. Allergic tests had showed strongly positive reactions to the fall pollens, particularly short and giant ragweed, and to the food proteins of wheat and chicken. Preseasonal immunization with mixed ragweed for the past three years had been followed by almost complete relief from seasonal hay-fever and pollen asthma, and abstinence from the offending foods had entirely eliminated nonseasonal asthma. On several occasions within the past year, however, the ingestion of wheat or chicken had promptly produced an asthmatic attack. Each such attack was promptly relieved by a single dose of ephedrine (50 mg., orally administered). The relief by ephedrine was so satisfactory that the patient had on numerous occasions deliberately eaten the offending food, with the assurance that the asthmatic attack produced could be relieved by this drug.

This case exemplifies a purely allergic asthma, beginning with pollen sensitivity, followed after eight years by acquired sensitivity to foods, the latter explaining the prolongation of the asthmatic attacks beyond the pollinating season. Complete symptomatic relief was obtained by ephedrine.

Miss I. D. (case 1), aged 33, had suffered for four years from nonseasonal vasomotor rhinitis, practically without remission. During the past year she had had attacks of asthma, occurring almost every night, and usually awakening her at 5 or 6 o'clock in the morning. Cutaneous tests had revealed strongly positive reactions to goose feathers, house dust and horse dander. Removal of the offending feathers and hyposensitization with a dust extract had produced partial relief. After completion of horse dander immunization there had been entire relief of symptoms. During the time that this patient was being studied, and during the time that immunizing doses of dust and horse dander were being given, the asthmatic attacks were completely prevented by the use of 50 mg. of ephedrine orally, morning and evening. On several occasions the drug was omitted, and the usual nocturnal attack came on.

This case also illustrates the complete relief afforded in the allergic type of asthma by ephedrine and its value as a means of producing temporary symptomatic relief during the time that a patient is under preliminary observation, pending curative measures.

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[8] Chen, K. K.: A Pharmacognostic and Chemical Study of Ma Huang (Ephedra Vulgaris Var. Helvetica), J. Am. Pharm. A. 14: 189-194 (March) 1925.

The effects of ephedrine in the infectious group are shown in table 2. This group includes thirty-seven cases, 63 per cent of the entire series. Of these, nine (cases 48 to 56) showed in addition evidence of allergy, but are included under the heading of infection because that seemed to be the more important immediate factor in the production of the disease.

TABLE 2—*Asthma, Infectious Type*

No	Sex	Age	Duration of Disease, Years	Ephedrine Administered Amt, Mg	Ephedrine Administered Oral or Subcutaneous	Relief Obtained	Comment
20	♀	45	2 wk	50	0	Partial	Chronic bronchitis
21	♂	39	2	50	S	Complete	
22	♂	42	2	50	0	Partial	Asthmatic bronchitis; emphysema; pneumonoconiosis
23	♂	26	2	50	0	Partial	Sinusitis
24	♀	53	2	50	0	Complete	Sinusitis
25	♂	19	2	50	0	Partial	Sinusitis
26	♀	35	3	50	0	Partial	Sinusitis
27	♂	40	3	50	0	Partial	Sinusitis
28	♂	51	5	50	0	None	Sinusitis
29	♀	24	5	50	0	Complete	Sinusitis
30	♀	42	5	50	S	Complete	
31	♂	33	6	50	0	Complete	Sinusitis and emphysema
32	♀	65	6	50	S	None	Asthmatic bronchitis; chronic myocardial disease
33	♀	30	6	50	0	Complete	Sinusitis; chronic myocardial disease
34	♀	13	6	100	S	None	Sinusitis
35	♀	42	8	50	0	Partial	Pansinusitis
36	♂	25	7	50	0	Partial	Ethmoid sinusitis; turbinate hypertrophy, nasal polypi
37	♂	60	8	50	0	Partial	Sinusitis, chronic bronchitis
38	♂	30	10	100	S	Complete	Bronchiectasis (?)
39	♂	45	10	100	0	Complete	Sinusitis
40	♀	51	13	50	0	Partial	Sinusitis
41	♂	33	17	50	0	Complete	Coryza, nonseasonal — not proved allergic
42	♀	65	18	50	0	Complete	Sinusitis; arthritis; emphysema
43	♀	30	20	50	0	Partial	Sinusitis
44	♂	63	20	50	0	Partial	Sinusitis; emphysema
45	♂	60	20	100	0	None	Sinusitis; emphysema; bronchiectasis
46	♀	50	20	100	S	None	Sinusitis; arthritis
47	♀	33	20	50	0	Partial	Sinusitis
48	♀	48	2	50	0	Complete	Hay fever; pollen asthma; sinusitis
49	♀	51	2	50	0	Partial	Hay fever; pollen asthma; sinusitis
50	♀	42	4	50	0	Partial	Sensitive to animal and food proteins; sinusitis
51	♂	40	4	50 100	0 S	Partial	Sensitive to sheep wool; sinusitis
52	♂	34	4	50	0	Complete	Allergic coryza; sinusitis
53	♂	45	6	50	0	Complete	Drug allergy; sinusitis; emphysema
54	♀	50	16	50	0	None	Sensitive to house dust; extensive sinusitis
55	♀	46	18	100	0	Complete	Hay fever and pollen asthma; sinusitis
56	♀	40	35	50	S	None	Sensitive to feathers; tuberculosis

The youngest patient was 24 years of age, the oldest 65, evidence in favor of the opinion that infectious asthma is usually encountered in adult life. While the duration of the disease in certain instances (cases 43, 47 and 56), according to the history, carries the onset back into childhood, it is probable that it was then of allergic nature. Certainly, asthma due to infection alone occurs rarely in childhood—at this period of life, it is usually allergic. Spontaneous remission may occur during adolescence, as a result of the development of acquired immunity, and later the disease may recur incident to infection, most frequently in the paranasal sinuses. From these foci, infection and reinfection of the bronchial mucosa may readily occur. The route of infection from the paranasal sinuses to the lower respiratory tract has been clearly demonstrated by Mullin,[9] who injected suspensions of india ink into the maxillary sinuses of rabbits and followed the course of the carbon deposits through various intermediate channels to the lungs.

Of the thirty-seven cases, the paranasal sinuses were the seat of infection in twenty-nine instances (86 per cent). In the majority of these, the spheno-ethmoid sinuses were involved. While any or all of the sinuses may be affected, clinical experience has convinced us that suppuration of the spheno-ethmoid and maxillary sinuses is especially prone to produce the disease. Many of the patients who have asthmatic bronchitis should perhaps be included under this heading, because of the frequency of bronchial infection and reinfection secondary to sinusitis.

Ephedrine produced complete relief in only fourteen instances (38 per cent) of this group; in sixteen partial relief occurred, and in seven none whatever. It is our suspicion that the less satisfactory response was due to the greater element of inflammation of the bronchial tree in these cases, contrasted with those of purely allergic origin. Such inflammatory change can be recognized by bronchoscopic examination, and such investigation will often serve to differentiate this type from the allergic type, which shows only vasomotor swelling and spasm. Ephedrine specifically affects the latter pathologic conditions, but we do not have evidence that it relieves true inflammatory changes, and we would not expect it to do so.

ILLUSTRATIVE CASES IN THE INFECTIOUS GROUP

Mrs. E. M. H. (case 34), aged 42, at the age of 17 years developed pollen asthma, the type not being proved, of course, by cutaneous tests but suggested by the seasonal character of the attacks. These subsided after a few years and she remained well otherwise until she had an attack of pneumonia in 1917. A few weeks after that her asthmatic attacks returned, and following influenza, during the epidemic of 1918, they became very much more severe; finally, she was almost continuously asthmatic. Cutaneous tests were negative. Four operations for the removal of nasal polypi within the past eight years did not afford relief. Finally, examination by Dr. George Fetterolf showed nasal polypi, clouding of both maxillary sinuses by transillumination and a stream of pus coming from both ethmoid regions. Roentgen-ray examination by Dr. H. K. Pancoast revealed decided clouding of both ethmoid and both maxillary regions. The patient refused sinus operation and was treated locally for six months without relief.

Ephedrine in doses of 50 mg. by mouth gave partial relief when the attacks were not unduly severe. Epinephrine subcutaneously was effective to the same degree. The severe attacks required opiates. Eventually the affected sinuses were surgically drained, but sufficient time has not elapsed to state the results of the operation.

TABLE 3.—*Asthma, Reflex Nasal*

No	Sex	Age	Duration of Disease, Years	Ephedrine Administered Amt, Mg	Ephedrine Administered Oral or Subcutaneous	Relief Obtained	Comment
57	♀	39	22	50	0	Complete	Hypertrophied turbinates
58	♂	31	8	50	0	Complete	Hypertrophied turbinates; septal contact
59	♀	47	12	50	0	Complete	Hypertrophied turbinates

This case illustrates allergic disease in adolescence, with spontaneous remission until intercurrent infections (pneumonia and influenza) caused sinus infection, which in one of allergic strain caused bronchial asthma. It shows, furthermore, that those persons with the infectious type of asthma are not benefited as much as are those whose disease is on an allergic basis.

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[9] Mullin, W. V.: The Relation of Paranasal Sinus Infection to Disease of the Lower Respiratory Tract, J. A. M. A. 87: 739-741 (Sept.) 1926.

The effects of ephedrine in the reflex nasal group are shown in table 3. This group comprises three cases of the reflex nasal type. All occurred in adults and all had easily recognizable mechanical difficulties in the nose, unilateral or bilateral turbinate hypertrophy with firm septal contact. They obtained complete temporary relief from ephedrine (100 per cent). In such instances, permanent cure by appropriate nasal surgery may confidently be expected, whereas in the infectious cases local treatment is not of so certain value. It is to be presumed that ephedrine acts in one of two ways: either by contracting the nasal mucous membrane and so overcoming the local nasal irritation or by relaxing the bronchial spasm that results from the nasal irritation. The following cases will serve as illustrations of the results obtained in the reflex nasal type:

ILLUSTRATIVE CASES IN THE REFLEX NASAL GROUP

Mrs. M. B. (case 57), aged 39, who had a sister and a maternal aunt with asthma, developed the disease at the age of 17, the attacks coming on irregularly until the past year when they occurred nightly. Nasal polypi had been removed when the patient was 32 years of age but without demonstrable effect on the disease. All skin tests were negative. Dr. George Fetterolf examined her and reported: "Middle turbinates big and white and in firm pressure contact with the septum throughout their entire length. There are some individual polypi present." For ten consecutive nights there was entire freedom from asthma by the use of 50 mg. of ephedrine by mouth at bedtime. A similar dose during the day sufficed to abort diurnal attacks. Bilateral middle turbinectomy and removal of polyps was done by Dr. Fetterolf in July, 1926. After that operation there was entire freedom from attacks.

Table 5.—*Observations of Intranasal Effects Produced by the Oral Administration of Ephedrine*

Case	Type	Dose, Mg.	After Ten Minutes	After Twenty Minutes	After Thirty Minutes	After One Hour
1	Chronic sinusitis	50	Left turbinate slightly more pallid	Slight contraction, both turbinates	Greater contraction	Turbinates were markedly shrunken
2	Chronic sinusitis; contact, left inferior and right inferior turbinates	100	No change	No change	Slight contraction of left inferior turbinates	Slight shrinkage and pallor of both turbinates
3	Chronic sinusitis	100	Slight shrinkage	No further change......	No further change......	Greater shrinkage
4	Acute ethmoiditis; septal turbinate contact, bilateral	100	No change	Slight shrinkage, right side	Slight shrinkage, both sides	Greater shrinkage, both sides
5	Asthma; contact, middle turbinate with septum, left side	50	Pallor, no shrinkage....	Same	Pallor; slight shrinkage	No further change
6	Asthma; septal turbinate contact, left side	100	No change	Slight shrinkage, both sides	No further shrinkage....	No further shrinkage; pallor, lower turbinate
7	Hay-fever	100	No change	Slight shrinkage, bilateral	Further shrinkage; pallor	Still further shrinkage and more pallor
8	Chronic sinusitis, right septal turbinate contact	100	No change	Turbinate pallor	Shrinkage and more pallor	Bilateral shrinkage and pallor; increased space averaging 1 mm.
9	Turbinate hypertrophy with septal contact, both sides	100	Slight shrinkage	More shrinkage	No further change......	Further shrinkage, bilateral, and some pallor
10	Bilateral turbinate hypertrophy with septal contact	50	Slight shrinkage, both sides	No further change......	A little more shrinkage, right side	No further change
11	Normal	50	No change	No change	No change	No change
12	Normal	50	Slight shrinkage, left side	A little pallor (bilateral); no further shrinkage	Pallor same; a little more shrinkage	More shrinkage; pallor same

H. McG. (case 58), a man, aged 34, was perfectly well until he contracted influenza during the epidemic of 1918. Following this he was discharged from the army on a certificate of disability, the reason not being ascertained. His first attack of asthma began suddenly after his return home. There were subsequent attacks at long intervals until the past three months, when they occurred nightly. In addition to this, slight physical exertion during the daytime always produced wheezing and dyspnea. Skin tests for allergic sensitivity were entirely negative. Examination by Dr. James A. Babbitt revealed a badly deviated septum, in contact with the middle turbinate on the right side. The administration of ephedrine in doses of 50 mg. orally, twice a day, was followed by complete relief from asthma for four weeks, except that on several occasions during this time the drug was deliberately withheld for twenty-four hours, each time with a prompt return of asthma. Submucous resection and turbinectomy were finally performed.

SUMMARY

The results obtained by ephedrine in the fifty-nine cases of asthma are shown in table 4. Of the total number of patients, 59 per cent were .completely relieved, 25 per cent were partially relieved, and 15 per cent did not obtain benefit from the drug.

Table 4.—*Summary Showing Effects of Ephedrine in Various Types of Bronchial Asthma*

Type	Number of Cases	Relief Obtained: Complete, Number	Complete, Per Cent	Partial, Number	Partial, Per Cent	None, Number	None, Per Cent
Allergic.................	19	16	84	1	5	2	11
Infectious..............	37	14	38	16	43	7	19
Reflex nasal	3	3	100	..	..	..	..
Total................	59	33	56	17	29	9	15

HAY-FEVER AND OTHER ALLERGIC DISEASES

Dr. Alice H. Cook and Dr. Otto Willner of Peking, China, were the first to suggest and demonstrate the local use of ephedrine as a constrictor of the nasal mucous membrane. Their work has not been published, but due credit was given them by Miller[1] and by Fetterolf and Sponsler.[10] The latter workers made a careful investigation of this action in a series of seventeen patients who showed nasal turgescence and confirmed the reported satisfactory results of Cook and Willner. They did not employ it in any cases of hay-fever, but soon afterward we were able to demonstrate that, when locally applied in 5 per cent solution into the nose, ephedrine had a satisfactory effect in such cases. It soon developed, furthermore, that relief of the distressing hay-fever symptoms could be secured by its oral administration, and in nine of our eleven cases here referred to, it was so used. Recently, Gaarde and Maytum[6] have reported on its action in a series of twenty-six cases of hay-fever, in all of which it was administered orally.

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[10] Fetterolf, George; and Sponsler, M. B.: Ephedrine Sulphate, the Alkaloid of Ma Huang, Effects of Local Application on the Nasal Mucous Membrane, Preliminary Report, Arch. Otolaryngol. 2: 132-135 (Aug.) 1925.

In order to secure more conclusive evidence of the action of ephedrine on the nasal mucous membrane when administered orally, we sought the help of Dr. James A. Babbitt of the department of otolaryngology of the University Hospital, and he studied its action in twelve patients.

His results are presented in table 5 which gives the diagnosis, the doses administered, and the local effects after ten, twenty, thirty and sixty minutes. Four of the patients had manifest infection of the paranasal sinuses; six had hypertrophy of the middle turbinate bodies; two gave a history of asthma; one was suffering from hay-fever, and two were normal. Six patients showed shrinkage of the nasal mucosa or pallor or both at the end of ten minutes, eleven of them similar changes at the end of an hour. The single case in which no change occurred was in one of the normal patients. This evidence of the action of ephedrine on the nasal mucosa when orally administered is comparable to that detailed by Fetterolf and Sponsler for its action when applied locally and supports the clinical results obtained in cases of hay-fever by oral administration. Such administration has the advantages of being more easily employed by the patient and of avoiding an irritating local action that has been complained of by some patients when the hydrochloride salt was sprayed into the nose.

To return to our eleven cases of hay-fever, it may be pointed out that the two patients who received the drug by spray were greatly relieved, and that of the nine getting it by mouth five were definitely benefited. In two of these the relief was particularly striking. One, with a severe case of spring pollinosis, was able to cross the continent, from Philadelphia to Los Angeles, in reasonable comfort during the pollinating season, and another, with an equally severe case of fall hay-fever, who heretofore had always been compelled to go to a hay-fever resort each autumn, was enabled to continue at his work, which entailed almost daily or nightly train travel. Neither of these patients had received any other treatment. While we are heartily in accord with the opinion of Gaarde and Maytum[6] that it is difficult to judge the effect of palliative treatment in a paroxysmal disease, the weight of added clinical experience will undoubtedly prove that ephedrine is a useful and frequently a remarkably efficient drug in the symptomatic treatment of hay-fever.

The discovery of the nasal action of ephedrine, administered orally, gives rise to the thought that this may be the explanation of its conspicuously good effect in those cases of asthma classified as "reflex nasal," in all three of which complete relief was obtained. The purely allergic cases also have a considerable degree of nasal obstruction, as evidenced by swelling, edema and pallor of the nasal mucosa. In sixteen of the nineteen allergic cases (86 per cent) the patients obtained complete relief from ephedrine, results suggesting that in addition to the antispasmodic action of the drug, its good effects in this group of cases may be attributed, in part at least, to its ability to contract the nasal mucosa.

UNTOWARD EFFECTS

Palpitation, nervousness, tremulousness, nausea, insomnia and a sense of constriction around the head have been noted in a few instances. In no case were the symptoms as severe as those frequently produced by epinephrine, and in no case was it necessary to stop giving the drug. Bladder disturbances noted by Thomas[3] did not occur in our series. One patient, a physician who had been using epinephrine for years without untoward effect, suffered so severely from major urticaria while taking ephedrine that the drug had to be stopped, although it afforded him relief from his asthma.

CONCLUSIONS

This study of the effects of ephedrine in a group of fifty-nine cases of asthma and eleven cases of hay-fever shows that:

1. Ephedrine produced complete temporary relief in 56 per cent of the cases of asthma and 63 per cent of the cases of hay-fever.
2. In asthma the best results were obtained in the allergic and reflex nasal cases (84 and 100 per cent, respectively), and least satisfactory results were obtained in the infectious group, although even in this series a sufficient number obtained complete temporary relief (38 per cent) to justify its trial.
3. Of all the patients with nasal obstruction (three reflex nasal cases and nineteen allergic ones), 86 per cent were completely relieved.
4. In addition to producing bronchial dilatation, ephedrine orally administered produces contraction of the nasal mucous membrane.
5. The oral administration of ephedrine in cases of hay-fever has advantages over its local application in the nose in that the local irritating effects can thus be avoided and in that, for the patient, it is a simpler method of administration.

2025 Spruce Street—110 South Twentieth Street.

THE PRODUCTION, COLLECTION AND DISTRIBUTION OF HUMAN MILK

RETROSPECT AND PROSPECT *

B. RAYMOND HOOBLER, M.D.
DETROIT

Nearly fifteen years ago there crept into medical literature the statement that a few ounces of human milk had been collected in a bottle and taken aboard a floating hospital to be fed to very ill babies. This, so far as I can find in the literature, was the first reported instance of breast milk being fed to a sick infant except through the direct use of a wetnurse. This report was made by Dr. Fritz Talbot of Boston, and the milk was used in connection with the Boston Floating Hospital.

The feeding of breast milk through the intermediary of a wetnurse is a world wide and an age long procedure, but here is a new venture, of passing the milk of the wetnurse through a bottle to the baby, thus eliminating the presence of the wetnurse in person and thereby solving many difficult problems, particularly in centers of congested population where the problem of housing the wetnurse and her baby is acute.

It was about this time that, while working in the wards and outpatient department of Bellevue Hospital, I noted many infants who needed breast milk, particularly in the room for premature infants, while many mothers came to the outpatient department with breasts overflowing with this precious food material. It was to bring together this supply on the one hand and need on the other that our first collection bureau was estab-

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* Read before the Philadelphia Pediatric Society, March 8, 1927.

lished under the enthusiastic and efficient supervision of Miss Waddley of the Social Service Department of Bellevue Hospital. I remember with what earnestness the question was debated, could mothers be persuaded to sell the products of their breasts?

A small sum of money was donated to determine this point, and it was not long before we were able to answer the question in the affirmative. From this small beginning, bureaus in many cities have been opened.

During these intervening years much valuable information has been obtained concerning the best methods of organization, and it is from the experience of the operation of the Detroit Bureau of Wet Nurses that I draw most of the facts used in this retrospect.

ORGANIZATION OF DETROIT BUREAU

For the past twelve years this organization has functioned ideally, and we have not found it necessary during these years to alter our original plan of representation, which brought three important groups together, all having a peculiar interest in the problems at hand. First and foremost, it seemed necessary that the location of the bureau should be in connection with some maternity hospital or home in which our producing mothers would most logically be found. It is in one of these maternity hospitals that the problem of producing milk is ever present, and it is there, too, that the mothers with excess supply are more easily found. From the clientele of such hospital or home one may expect to recruit the first producing mothers. On the board of such a maternity hospital or home are sure to be several noble women or men who can be enlisted in this work; such a group is absolutely indispensable to the success of a bureau.

There is usually an active social service department connected with the hospital or home or some social service organization of some kind in the city, and it is this social service department that represents the second important group in a well organized bureau. This group is usually made up of both volunteer and paid workers who are interested in both the nursing mother and the infant. Many sociological and enconomic problems particularly of the unmarried mother and her infant are constantly before them, and a lively interest is imparted by them to the whole group.

The third group that seems essential to the organization is composed of pediatricians, usually those who are connected with active services in children's hospitals or wards of general hospitals where the need of breast milk, particularly in the premature room, stands as a constant challenge to them to encourage these workers and to direct them in the scientific conduct of the bureau. To such pediatricians the bureau constitutes a bulwark of confidence, for instead of relying on breast milk as a last resort in difficult feeding cases the pediatrician feels that he has at hand an emergency food suitable in nearly every condition. These three groups seem essential to the conduct of such a bureau, and, as I said, have functioned harmoniously and effectively in our bureau in Detroit. For several years the only paid employee of the bureau was one supervising nurse with an annual budget of $2,500, which would be the minimum amount to be underwritten say in a city of 50,000 inhabitants. The bureau in Detroit has been practically self-supporting from its beginning. It is to be expected that the hospital in which the bureau is located will arrange for the contribution of considerable time by its nurses and social workers without cost.

METHODS OF BUREAU

After a bureau has once been organized, how do we find our producing mothers? At first our supervising nurse kept in close touch with the wards, and when it was found that a mother was producing more than enough for her own child, it was suggested in the most natural way that she might be willing to share her supply with a less fortunate infant whose mother had died in childbirth or who for some good reason could not supply her infant from her own breast. Many mothers gladly give this excess with no thought of remuneration, but later when hospital bills are to be met and additions to wardrobe are required, and particularly when the increase in the family budget on account of the new arrival is considerable, there is often no hesitation in receiving remuneration for the milk supplied. It is through this gradual introduction to the sale of her breast milk that many a mother is won as a permanent producer. In this way we are building up a new profession for woman—that of a producer of human milk. This profession is entirely different from the old time wetnurse. This service in no way interferes with the duties of housewife and mother, and exposes her in no way to the public view. The only person with whom she need come in contact is the supervising nurse. The work need not be confined to housewives, but business and professional women are on our list as producing mothers. The remuneration is so satisfactory that several of our mothers became pregnant a second and third time in order again to become producing mothers, it being the rule to keep them registered with the bureau only up to the fourteenth month of lactation. It is a matter of medical record that certain of these mothers have received all the way from $2,500 to $3,500 a year for their milk. It is not to be wondered at that such splendid producers desire again to enter the bureau, and it is a great comfort to have a few such producers available when there is a great demand for breast milk.

This leads to some interesting figures concerning milk production. We have had registered in the bureau several mothers whose daily output has been between 3 and 4 quarts daily over a period of several months.

At present we have two mothers, whose milk is being carefully analyzed, whose daily output is more than 3 quarts. These two mothers happened to meet at the bureau one morning; one sat at the electric breast pump, the other expressed her milk by manual manipulation. At the end of twenty minutes the breasts were dry, and on measuring each was found to have produced exactly 57 ounces. This record was bettered later by one of them who sat at the electric breast pump for twenty-five minutes and produced 67 ounces. These quantities are not, however, the rule. Many produce between a pint and a quart a day. No producing mother is kept on the register of the bureau who cannot produce in excess of one pint daily.

A few words regarding expression of milk: Our mothers are all taught to express by hand. An expert expressor can empty her breasts quicker by hand than by the use of the electric breast pump devised by Dr. Abt, but for the mother who finds it irksome to express the milk by hand, the electric pump is preferred as it does not involve exertion on her part. It is the ideal method and produces a milk of lower bacterial count than when hand expression is used. Some of our mothers have found it so satisfactory that they have purchased Dr. Abt's electric breast pump and have it in their homes. We have found that the breast pump empties the breasts better than hand pumping, with not the slightest injury to the breast tissue. We believe that the maternal milk supply is increased if the breasts are completely emptied: the cause of the failing supply from breasts that are only suckled is that they are not completely emptied. Many a mother would be able to nurse her baby without aid if a breast pump were available for completely emptying the breast.

One naturally inquires what safeguards we use against the transmission of disease through the milk supplied by these producing mothers. All applicants to the bureau are required to take a careful physical examination; a Wassermann test is made; they must be free from venereal disease; they must be clean in their person and their homes must be tidy; their own babies must be healthy and growing properly. Each mother has her throat examined and temperature taken, and must be seen daily by the supervising nurse either at her own home or at the bureau. Each mother's milk is examined weekly, both chemically and bacteriologically, and no milk is accepted which does not conform to the rules laid down for cow's milk. Milk is classified as "pasteurized" or "certified." Certified milk must be expressed at the bureau and not contain more than 10,000 bacteria per cubic centimeter. Most of our certified milk runs below 1,000 bacteria per cubic centimeter. As soon as the milk is expressed, whether at home or at the bureau, it is put in containers and kept on ice until it reaches the infant for which it is intended. In transporting it from the home to the bureau and from the bureau to the home it is kept in sealed bottles packed in ice.

Our producing mothers are paid monthly at the rate of 10 cents per ounce when pumped at home and 15 cents per ounce when pumped at the bureau. It is quite a common thing for a mother to receive a check for $250 each month.

In addition to the amount paid the mothers, we have to pay the salaries of several trained nurses employed in the bureau and we own and operate a small automobile. However, we do not pay rent for our quarters in the hospital, which assists us greatly in keeping down overhead, which in past years has varied from 4 to 8 cents an ounce depending on the volume of business, thus giving us a total cost of production varying from 14 to 18 cents an ounce. We believe that this cost can be lowered by increasing our volume, and also by establishing a clientele among mothers who can produce large quantities and who will be willing to produce for less than 10 cents an ounce. The rate of 10 cents an ounce was established for the small producers, say, of a pint a day. It was difficult to keep them coming to the bureau for a less remuneration, but now that we are finding mothers of larger productivity, we believe we can eventually keep them registered with the bureau at less.

Turning now to the sales end of our organization, I have some very interesting things to report. In the first place, there exists among many mothers a prejudice against the use of another mother's milk for their babies. Particularly was this true in the old days of wetnursing when the baby was put to the breast of the wetnurse; but these mothers are more content when they learn that the milk is to be given in a bottle and does not require the presence of another person with her baby in the house. Many assurances, and properly so, must be given the mother that the milk to be given her baby comes from a healthy mother, and with all the precautions which we exercise we are usually able to quiet these fears; but the most common cause of hesitation is the fear that the milk might come from some colored mother. So strong is this objection that we have virtually ceased to receive milk from colored mothers, but this was not the only reason for cutting off supply from that source. We found that the bacterial count was usually higher from colored mothers, in spite of the greatest precautions. Of course, this objection does not hold in milk supplied to institutions, and our supply from colored mothers is pooled and furnished to those who have no objections. So far as the milk is concerned we find it of as good quality as from white mothers. In general, our supply of mothers' milk is pooled and is sold as mixed milk. We are able to accommodate physicians, however, when for any reason they ask for the milk of an individual mother or for milk of a certain stage of lactation; but, unless specified, mixed milk is supplied. Milk is supplied to patients only on the order of a physician, and the closest cooperation between the bureau and the physician is maintained. The visiting nurse from our bureau regularly visits the homes where our milk is supplied, to see that everything that the bureau can do is done to maintain an adequate supply. We are very careful not to interfere in any way with the regimen established by the physician, and seek rather to be a distinct help to him. We do not deliver the milk but will send it by messenger at the expense of the patient if so requested; otherwise it is called for at the bureau.

Our clientele consists of all classes from the very wealthy to the most needy. To the former we sell the milk at 30 cents an ounce, and to the needy we give it freely. About half of our output is sold at cost or below. Our budget just about balances at the end of the year, since that which is sold above cost just takes care of that which is sold below cost. In addition to private patients, both free and paid, we supply a large quantity to hospitals and institutions caring for sick infants. We charge such institutions the price which it costs us to produce it. We cannot at all times estimate our intake and outgo exactly, and in order that none may be wasted at the end of each twenty-four hours, we deliver the amount on hand to one of the institutions caring for infants, making no charge for this service. At the rate of 30 cents an ounce the cost seems rather high, but this charge is made only when it does not produce hardship. Much of it is sold at 25, 20 and 15 cents an ounce to families for which a greater price would be an economic burden. Even at the rate of 30 cents an ounce, it is cheaper than sending a wetnurse to the home. Among our clientele we have several families who have raised two and three babies entirely on breast milk up to the age of 6 months. The fear of being unable to nurse their babies is entirely lost with these mothers, for they know they can rely on the bureau to supply all that is necessary. And let me suggest here that the cause of the small family may often lie in the mother's unhappy experience of being unable to nurse the first baby, and the attendant difficulty of finding a food to agree with the child, thus discouraging the parents from attempting to raise another baby. Many mothers whose supply is deficient can secure just enough to make up the amount they cannot produce. Therefore, wherever a bureau is in operation, no infant need be without its natural food. In Detroit, where we have supplied such a large portion of milk without cost to the needy infants, we are partially reimbursed from the Community Chest, from which we may draw $1,500 in case of a deficit. Certain generous givers from among our clientele whose babies have been fed from the bureau may always be depended on to assist us in any crisis; and while it is a very comfortable feeling to have such interested patrons, we have seldom had to face a deficit, but on the other hand have nearly always balanced our budget. As our bureau lengthens its period of service, we are constantly increasing our number of satisfied customers and it is through them that additional customers are added. One is constantly hearing of the unbounded gratitude expressed by mothers and fathers for the service rendered by the bureau to their infants. The large sum of money paid for the milk is entirely forgotten in the joy of restored health to their offspring.

The types of infant responding most satisfactorily to the bureau's ministrations are: (1) infants born prematurely; (2) all infants under 1 month of age whose mothers cannot nurse them; (3) full term infants who for one reason or another are born much underweight; (4) infants with congenital syphilis; (5) infants with harelip or cleft palate; (6) infants with pyloric spasm and stenosis both before and after operation; (7) infants convalescing from any acute infection. This list does not by any means exhaust the conditions in which infants are greatly benefited by breast milk. It has been found that many infants will thrive better on an artificial formula if such form of feeding is accompanied by one or two feedings of breast milk daily.

It should be clearly understood that breast milk, on the other hand, is not to be considered a panacea for all the feeding ills of infancy. In certain cases of malnutrition it has proved disappointing. Human milk is not a food abundant in vitamin B, as was shown in a recent report which I made at the last meeting of the American Pediatric Society based on the work of Dr. Icie G. Macy and her co-workers of the Nutrition Laboratory of the Merrill-Palmer School. Vitamin D content of human milk has also been found to be extremely low, in fact, almost absent, confirming the work of many observers that rachitis may be of common occurrence in infants fed on human milk. Knowing these deficiencies, however, one is able to correct them in any regimen based on human milk feeding.

OTHER WORK OF THE BUREAU

One of the important by-products of the work of the bureau has been the various observations made by our workers on the factors entering into human milk production. There is such a volume of misinformation on this subject that it is worthy of some careful scientific investigation. Extensive observations on producing mothers are now being made by workers of the Nutrition Laboratory of the Merrill Palmer School in cooperation with our bureau. This work has been in progress for the last two years with a program covering the next three years. When completed, it will be the most extensive and exhaustive series of studies ever made on human milk, as it will cover the biologic properties and the chemical composition of the milk; the effect of various diets, on production, and the psychologic aspects of milk production. The bureau makes an excellent clearing house through which an adequate quantity of milk may be obtained for any sort of chemical analysis or for feeding observations on rat colonies, and our producing mothers make an ideal group in which to study the effect of diet on milk production, for all these mothers are anxious to increase their production. While this is one of the by-products of our bureau, it has possibilities in it rivaling the major work of the bureau.

CONCLUSION

The foregoing represents the accomplishments of the last ten years, during which time the bureau has handled 668,347 ounces of human milk. Our banner year was 1925, when 111,810 ounces was handled. We have gone far enough in this to know that an almost unlimited amount of human milk can be secured. We are not availing ourselves of the maximum output from our producing mothers. We have many more applicants than we can possibly use. We hardly dare estimate the amount of breast milk we could obtain if we operated to maximum capacity. We have demonstrated beyond peradventure that there is a vast potential source of breast milk which is waiting to be tapped. For many years I believed that every mother, under proper control, could become a producer of sufficient milk to nourish her own offspring, but this ideal has become shattered after observing the many failures among mothers who really wanted to nurse their babies and who followed intelligently all the suggestions based on our present knowledge of the best methods of milk production. We have only to look to the dairy industry to recognize that not all breeds of bovine milk producers are the same; that certain breeds are entirely eliminated from economical milk production, and that our milk supply comes largely from a few breeds which are chosen because of their ample production. Our experience after studying the output of many producing mothers convinces us that there exist many mothers who are quantity producers by nature and others who are minimum producers, equally by nature, and that for every mother who produces less than enough to nourish her infant properly there is one who produces enough both for her own child and to supply the deficiency of the other. In other words, there is a potential supply, so that if evenly distributed every infant might have its natural food. We are quite agreed that it is as much the inalienable right of every child to be fed well as to be born well. It is my firm belief that if every infant during its first month of life could be fed on wholesome breast milk, the death rate during this precarious first month would be greatly reduced, and the morbidity of the following months of the dangerous first year would be much diminished. As a slogan let me suggest "Breast milk for every baby under 1 month of age." The fulfilment of such a slogan is well within the realms of possibility.

Bureaus have been established in at least twenty centers of population scattered from Boston to Los Angeles. It is not too much to expect that every large city supporting a maternity hospital may become a center of human milk collection and distribution. Intervening areas may be served from these centers. Our bureau successfully delivered milk to Fort Wayne, Ind., a distance of several hundred miles. The bureau has a large potential supply of milk always available for use, and practitioners within twelve hours' shipping distance from Detroit are invited and urged to make use of our facilities.

Human milk has been dried and fed with good results. This suggests a suitable disposition of excess quantities. Our bureau is contemplating installing a drier so that we may have on hand a supply for emergency use in case our demand exceeds our supply. The shipment of the dried product would be simplified and permit us to serve a wider area than now.

1563 David Whitney Building.

PULSATING EXOPHTHALMOS *

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In reviewing the literature on pulsating exophthalmos, Locke[1] found that from 1809, when this condition was first described, there had been 588 cases recorded up to June, 1923. In a study of the available literature and a survey of the bibliography from the Surgeon General's Office I have been able to add eight cases, including the case reported here, bring the total to 596.

There are two types of pulsating exophthalmos, spontaneous and traumatic. Locke, in his analysis of 544 cases in which the etiology was stated, found that the spontaneous type occurred in 23 per cent and the traumatic type in 77 per cent. The spontaneous type, as a rule, occurs in women; it occurs late in life on an average, near the end of the fifth decade, and it usually develops very gradually. The majority of the traumatic type occurs in the male; the average onset is near the end of the third decade, and is usually sudden. In less than 25 per cent of cases of the spontaneous type, the causative factor is an intra-orbital tumor; 25 per cent of cases are due to simple aneurysm of the internal carotid or ophthalmic arteries; and more than 50 per cent are due to arteriosclerosis, with an accompanying aneurysm of the internal carotid artery and its rupture into the cavernous sinus producing an arteriovenous communication. In practically 100 per cent of traumatic cases the causative factor is an arteriovenous communication between the internal carotid and the cavernous sinus. Thus, it will be seen that in the great majority of cases the causative factor is an anastomosis between the internal carotid and the cavernous sinus.

The internal carotid and the cavernous sinus are in intimate relationship. This relationship extends along the body of the sphenoid bone from the superior orbital fissure to the apex of the petrous portion of the temporal bone. In this position, both artery and sinus are practically immobile. Trauma great enough to produce a basal fracture in this region is very prone to injure the walls of the vessels, so that an immediate rupture occurs, or the walls are so weakened that the rupture occurs later, producing a direct communication between the artery and the sinus.

Once this communication is established, arterial blood is pumped into the cavernous sinus. The current in the superior and inferior ophthalmic veins, the chief tributaries of the cavernous sinus, is reversed. As a consequence of this reversal of flow there is marked congestion of all tissues normally drained by these veins, and the orbital veins and veins over the forehead become distended and tortuous. Exophthalmos results and as arterial blood is being pumped into the distended orbital veins the proptosed eye pulsates synchronously with the heart beat. On auscultation a distinct bruit can usually be heard over the eye and for some distance back on the skull. The most marked subjective symptom and the one for which the patient most often seeks relief is head noises, which are usually hissing in character, extremely annoying, and synchronous with the heart beat.

Benjamin Travers,[2] who first described pulsating exophthalmos in 1809, reasoning from the fact that compression of the common carotid artery controlled the head noises and diminished if not entirely abolished the eye pulsations, decided that the condition was a cirsoid aneurysm of the orbit, and advised ligation of the common carotid as its surgical treatment. He was wrong in the minor detail of having assumed the arteriovenous communication as intra-orbital instead of intracranial. However, his advice as to the surgical treatment by ligation of the common carotid has stood the test of time, as this is the procedure almost universally instituted in a well developed case of pulsating exophthalmos.

In many instances following ligation of the common or internal carotid, disturbances of the central nervous system manifest themselves, as the result of the sudden diminution of blood supply to that side of the brain. These manifestations range from paresis and paresthesia of the opposite side of the body to complete hemiplegia and even sudden death.

The collateral circulation to the brain is through the circle of Willis connected posteriorly by the vertebral artery, which comes off the first portion of the subclavian. In order to establish collateral circulation sufficient to obviate these central nervous symptoms, long courses of external compression of the common carotid have been instituted. Kerr[3] of Washington, D. C., in order to attain this object, has done what he calls fractional ligation of the common carotid. He places a flap of fascia around the artery, reducing its capacity about 50 per cent; and later, when the collateral circulation has developed, he ties the artery.

My object in writing this paper and in reporting this case is to call attention to a procedure for the gradual occlusion of the common carotid. This gradual occlusion, by the application of the Neff clamp, allows the collateral circulation to become well established and minimizes the possibility of cerebral symptoms.

Dr. James M. Neff,[4] working with Drs. Patton, Hamblen and myself as his assistants, perfected this clamp in 1911 and reported his work in August, 1911. Dr. A. T. R. Cunningham[5] successfully applied the clamp in the human being, in 1913, and reported his case in January, 1914. Dr. Cunningham's case and the case I report are the only two cases that I could find in which the clamp had been applied in the human being.

The clamp consists of two blades of sheet aluminum, number 12 gage, hinged at one end. As applied to the carotid in the human being, the clamp is one-half inch wide and 1¼ inches long. It has three set backs or grooves in it: one wide and deep at the opposite end from the hinge; one next to this not so deep or wide, and one similar to the second groove next to the hinge. The first groove is for the winding of number 2 plain catgut to keep the blades separated; the second is for a dental rubber band to draw the blades together as the catgut is absorbed, and the third groove next the hinge is for another dental rubber band to help draw the blades together. The artery goes between the blades through the space between the grooves for the dental rubber bands.

The principle of the clamp is that when it is in the tissues the catgut is gradually absorbed, and the dental rubber bands draw the blades together, entirely occluding the artery. Its application is very simple. The blades are wound in the proper grooves with number 2

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* Read before the North Pacific Surgical Society, Vancouver, B. C., Dec. 11, 1926.

[1] Locke, C. E.: Ann. Surg. **80**: 1 (July) 1924.

[2] Travers, Benjamin: M. Chir. Trans. **80**: 1, 1809.

[3] Kerr, H. H.: Surg. Gynec. Obst. **41**: 565 (Nov.) 1925.

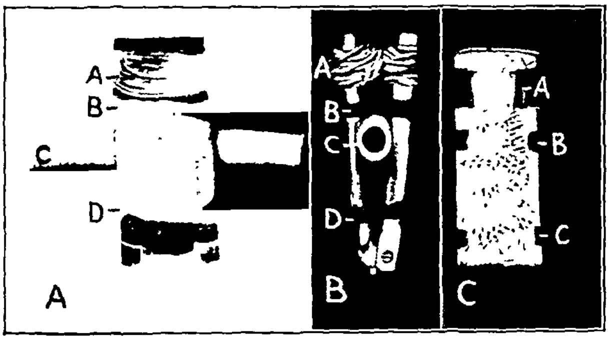
[4] Neff, J. M.: A Method for Gradual Automatic Occlusion of the Larger Blood Vessels at One Operation, J. A. M. A. **41**: 700 (Aug. 26) 1911.

[5] Cunningham, A. T. R.: Report of a Case of Gradual Occlusion of the Common Carotid Artery in the Treatment of Pulsating Exophthalmos, J. A. M. A. **62**: 373 (Jan. 31) 1914.

plain catgut, and a dental rubber band is applied in the groove next the hinge. The clamp is slipped around the artery and the pulse beyond the clamp tested. If, in the judgment of the operator, about 50 per cent of the normal capacity of the artery has been shut off, the other rubber band in the remaining groove is applied and the wound closed.

Dr. Cunningham reported that after he applied the clamp in the transverse position the ends of the clamp impinged on the internal jugular vein and vagus nerve. In order to avoid injury to these structures, he sutured a portion of the sternocleidomastoid to the omohyoid under the clamp. Later, he devised a modification of the clamp. He shortened the clamp and did away with the grooves for the dental rubber bands, using a steel spring for compressing the blades.

I applied the Neff clamp to the common carotid of the dog twenty-seven times without symptoms following. As the clamp is very soon surrounded by a dense fibrous capsule, I do not believe there is any danger to the internal jugular or vagus nerve. However, to obviate this danger entirely, it occurred to me to stand the clamp up. In other words, the clamp was applied so that the hinge was behind and the long portion projecting between the sternocleidomastoid and ribbon muscles. It can be held in this position by a ligature placed between the blades and attached to the sternocleidomastoid.



A, clamp as applied to artery: A, catgut wound around blades; B, first dental rubber band; C, tubing representing artery; D, second dental rubber band. B, side view: A, catgut wound and separating blades; B, dental band; C, tubing representing artery; D, dental band. C, plain clamp winding of: A, setback for catgut; B and C, setbacks for application of dental rubber bands.

REPORT OF CASE[6]

T. W. M., a man, aged 43, was struck over the right supra-orbital area with a blackjack, Nov. 9, 1925. The blow, while severe, did not cause a loss of consciousness. There were no subjective symptoms of note until six days later, when a mild head humming and diplopia developed. These gradually improved without treatment, and no new symptoms were manifested until April 9, 1926, when suddenly the head roaring increased, the right eye protruded, headache and vertigo were pronounced, and vision was reduced in the right eye.

Examination, April 16, 1926, disclosed extreme exophthalmos of the right eye, with displacement downward and inward. Ocular motility was practically nil. There was distention of the veins of the lid and on the conjunctival surface. Palpation revealed a distinct pulsation of the globe. Bruit was heard over the supra-orbital and temporal areas. Compression of the right common carotid artery lessened the exophthalmos, pulsation and bruit. The pupil was semi-dilated, reacting slowly to light. There was definite optic neuritis with retinal venous engorgement and pulsation. Vision was 20/70.

In the left eye extra-ocular or intra-ocular pathologic conditions were absent. The vision was 20/20. The urine, blood tension and general physical condition were normal. A Wassermann reaction was negative.

April 22, assisted by Drs. Sprowl and Marshall, I applied the clamp to the right common carotid artery. That evening there was decreased exophthalmos, slight ocular rotation and less congestion of the conjunctival veins, but no change in optic neuritis. The patient showed daily improvement, and on May 4 the exophthalmos had decreased 75 per cent, the optic neuritis was practically gone, ocular movements were markedly increased and the vision was 20/40. Examination, June 3, five weeks after the operation, showed the vision 20/30 plus; slight exophthalmos; normal ocular movements, and lessened conjunctival congestion. The right pupil was equal with the left, and reacted normally. Optic nerve edges were distinct; the retinal veins were moderately engorged, and there was no pulsation. Subjectively, the head noises were much less and the patient said he felt extremely well.

I last saw the patient, Nov. 7, 1926. The clamp was still in the tissues but was not giving any trouble. There was no pulsation in the common carotid artery above the clamp, but slight exophthalmos and congestion of the conjunctival veins were present. A slight hissing bruit could be controlled by the slightest pressure above the inner canthus. Against advice, the patient is working very hard at manual labor, constructing road. When lifting, the bruit becomes very marked. He has been advised to have the right superior ophthalmic vein ligated.

CONCLUSIONS

1. *In my opinion, gradual occlusion of the common carotid, by the application of the Neff clamp, is the method of choice in the treatment of pulsating exophthalmos.*
2. In those cases, as in this one, in which the bruit and congestion is not entirely controlled, ligation of the superior or inferior ophthalmic veins is indicated.

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[6] I am indebted to Dr. R. J. Sprowl for the history and physical examination in this case.

DIAGNOSIS OF GALLBLADDER DISEASE

APPLICATION OF RECENT ADVANCES IN PHYSIOLOGY *

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The important factors in the physiology of the gallbladder are two: (1) It stores bile during fasting, owing to relaxation of its musculature, and to concentration by absorption of water through its mucous membrane, and (2) it empties this stored bile into the duodenum during digestion, by muscular contraction.

Concentration of bile by the gallbladder is a fact long known to physiologists.[1] Emptying of the gallbladder by muscular activity has been shown in experimental animals through roentgenologic observation of the gallbladder containing iodized oil,[2] by (*a*) elongation of the viscus during emptying, with points of constriction, giving the appearance of tonic contraction, followed by relaxation during rest (figs. 1 and 2), and (*b*) by excitation with smooth muscle stimulants. It is a fact of clinical significance that in cholecystitis[3] (pronounced) or after injury to the musculature,[4] the gallbladder will not empty.

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* From the Surgical Clinic of the Peter Bent Brigham Hospital.

* Read before the Medical Society of the County of New York, Dec. 27, 1926.

* The work on animals illustrated by figures 1 and 2 was done by my assistant, William F. Krause, in the Laboratory for Surgical Research of Harvard Medical School.

[1] Maly, R., in Hermann, L.: Handbuch der Physiologie, Leipzig **5**: 172, pt. 2, 1881, cited by Rous and McMaster. Brand, J.: Arch. f. d. ges. Physiol. **90**: 491, 1902, cited by Rous and McMaster. Rous, Peyton; and McMaster, P. D.: The Concentrating Activity of the Gallbladder, J. Exper. Med. **34**: 47-73 (July) 1921.

[2] Whitaker, L. R., and Boyden, E. A.: Observations on the Function of the Gallbladder, Am. J. Physiol. **76**: 199 (March) 1926. Whitaker, L. R.: The Mechanism of the Gallbladder, ibid. **78**: 411-436 (Oct.) 1926.

The musculature is activated most effectively by absorption of fat or fatty acids from the intestine (figs. 1 and 2), only slightly by proteins, and none whatever by carbohydrates.[5]

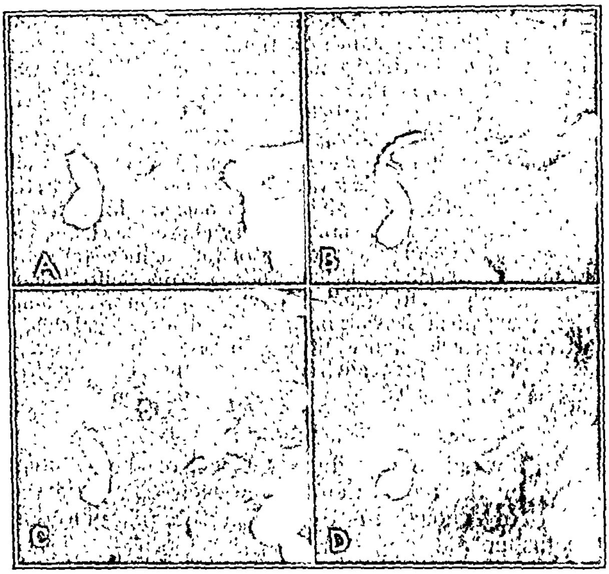

Fig. 1.—*A*, resting gallbladder of a fasting cat twenty-four hours after *injection of iodized oil at laparotomy; this gallbladder has a normal con*striction at its middle. *B*, five minutes after feeding oleic acid; narrowing and elongation, with exaggeration of the constriction, and filling of the cystic and common ducts, indicating tonic contraction. *C*, two hours after feeding: gallbladder still in tonus, but emptying has ceased. *D*, twenty-four hours after feeding, the tonus has relaxed; the remaining oil has dropped back into the fundus, the rest of the viscus being filled with bile.

The belief is almost universal that during digestion the musculature of the gallbladder is stimulated at the same time that the sphincter of the common bile duct is opened, through the action of a reciprocal nervous mechanism. But there is a great deal of evidence against this assumption, the most significant of which is that the denervated gallbladder empties normally.[6] So-called nonsurgical drainage of the gallbladder based on this reciprocal innervation theory consequently does not have a sound basis; and it has been demonstrated that, as an agent for emptying the gallbladder, magnesium sulphate in the duodenum is markedly inferior to an ordinary meal.[7] This does not infer that, as a means for studying the character of the bile and the cytology of the biliary passages for diagnostic purposes, the method may not be of great value.[8]

In the diagnosis of disease of the gallbladder, an understanding of the physiology of the organ is of first importance, from the point of view both of symptomatology and of the interpretation of cholecystograms.

With mild cholecystitis and even in the presence of stones, the musculature of the gallbladder may preserve a high degree of contractility (figs. 3, 5, 6, 7, 8 and 9) enough even to expel stones through the cystic duct.[9] In all probability much of the abdominal distress and flatulence of "indigestion" or "dyspepsia" is due to reflex disturbance from contraction of the gallbladder on a mass of stones, or the expulsion of one or more stones into the ducts after the ingestion of fat. Consequent blockage of the common duct may produce jaundice of varying degree and duration.

Interpretation of cholecystograms is dependent on a knowledge of the activity of the mucous membrane and the musculature of the gallbladder. It is the general belief that a faint shadow depends on failure of concentration of the dye from inactivity of the mucosa or blockage of the lymphatics from inflammatory changes.[10] To be sure, the mucosa is necessary to shadow formation, for in its absence none is produced;[11] yet in mild cholecystitis a shadow of normal density may be obtained which disappears normally after a fat meal. If, however, the musculature of the viscus is inactive, owing to some asthenic state[9] or to sclerosis of the gallbladder wall, resulting in stasis,[12] there can be only slight ingress of bile containing the dye, and the shadow will necessarily be faint. Furthermore, occupation of a large part of the cubic content of the gallbladder with stones or débris will decrease the proportionate amount of dye that enters the viscus and either produce a faint shadow or altogether prevent

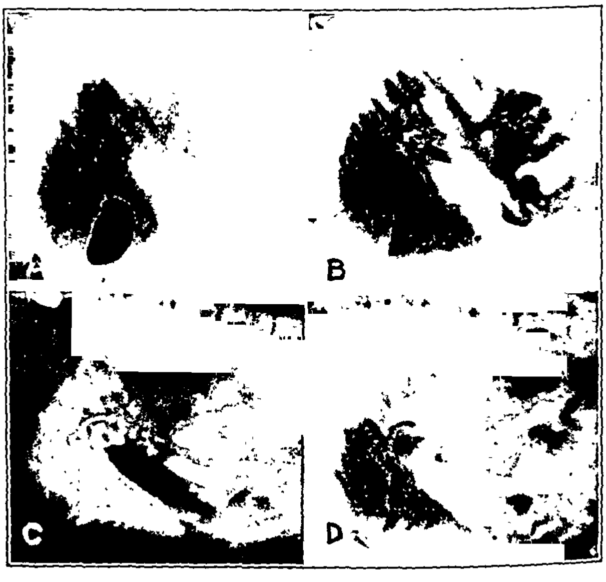

Fig. 2.—*A*, resting gallbladder of a fasting cat twenty-four hours after injection of iodized oil at laparotomy: viscus rounded and relaxed. *B*, elongated gallbladder in tonus one and one-half hours after feeding oleic acid; the slight contraction ring at about the middle may be noted. *C*, two and three-quarters hours after feeding, the contraction ring has become more pronounced; the fundus of the gallbladder is in marked tonus and empty; the cystic and common ducts are full, with large masses of oil in the intestine. *D*, four hours after feeding, gallbladder empty below the contraction ring; viscus still in marked tonus and actively emptying.

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[3] Potter, J. C., and Mann, F. C.: Pressure Changes in the Biliary Tract, Am. J. M. Sc. **171**: 202-217 (Feb.) 1926.

[4] Whitaker (footnote 2).

[5] Whitaker (footnote 2). Krause, W. F., and Whitaker, L. R.: The Effect of Elementary Food Substances upon the Gallbladder, unpublished.

[6] Whitaker (footnote 2). Whitaker, L. R.: The Mechanism of the Gallbladder and Its Relation to Cholelithiasis, J. A. M. A. **88**: 1542 (May 14) 1927.

[7] Whitaker, L. R.: Experiences with Cholecystography, Including Observations on the Function of the Gallbladder, J. A. M. A. **86**: 239-243 (Jan. 23) 1926.

[8] Lyon, B. B. V.: Diagnosis and Treatment of Diseases of the Gallbladder and Biliary Ducts, J. A. M. A. **73**: 980-983 (Sept. 27) 1919. Jones, C. M.: The Rational Use of Duodenal Drainage, Arch. Int. Med. **34**: 60-78 (July) 1924.

[9] Whitaker (footnote 6).

[10] Moore, S.: The Development and Application of Cholecystography, Brit. J. Radiol. **31**: 283-297 (Aug.) 1926.

[11] Spurling, R. G., and Whitaker, L. R.: End Results of Cholecystostomy as Shown by the Cholecystogram, Surg. Gynec. Obst. **44**: 463-467 (April) 1927.

[12] Whitaker (footnote 2). Spurling and Whitaker (footnote 11).

shadow formation, even without blockage of the cystic duct. In order to demonstrate the application of these principles in physiology to the diagnosis of gallbladder disease, a few cases are presented.

Case 1.—*History.*—A single woman, aged 41, for ten years had been troubled with a feeling of "dead stomach" in the morning, and four years before admission had an attack of "bursting" epigastric pain, with recurrences a year later and several times after that. For a year before admission she had had epigastric distress with a feeling of "lump in the stomach" and gaseous eructations with nausea coming on one-half hour after meals. For six months the epigastrium had been sensitive to pressure.

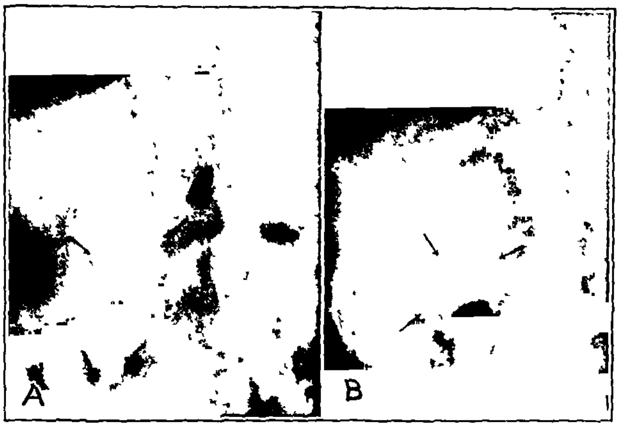

Fig. 3 (case 1).—*A*, cholecystogram, oral, fifteen hours, patient fasting; mottling, indicating stones, is seen above and laterally; overlapping the shadow of the gallbladder is a shadow of gas in the colon below, and a shadow of the duodenum mesially. *B*, cholecystogram decreased in size two hours after a fat meal indicating muscular action; mottling still present, confirming the previous observation; the contraction of the gallbladder has lifted it away from the colon below and the duodenum mesially.

Cholecystographic Examination. — Oral cholecystograms (fig. 3) showed, at fifteen hours, a shadow somewhat fainter than normal with a fairly smooth outline, and irregular mottling (outside the area covered by the duodenum and colon). The shadow was reduced only slightly in size two hours after a fat meal.

Interpretation of the Cholecystograms.—The presence of a shadow indicates at least that the mucous membrane is functioning and that there is no blockage of the cystic duct. The fact that the shadow is faint may be due to impairment of the mucous membrane or to the partial occupation of the gallbladder with foreign material. This is a probable explanation, since the mottling of the shadow indicates stones. The reduction of the shadow in size after a fat meal shows that the musculature of the gallbladder is active. After all, the very fact that a shadow is produced is good evidence that the musculature is active for the following reason. Since the expulsive agent is the smooth muscle, the gallbladder *would not empty if this were not functioning,* and could not then refill with bile containing the dye—consequently no shadow would be produced. It is predicted, then, that this gallbladder will be only slightly diseased. The wall will be thin, the musculature fairly well preserved. The mucous membrane will be normal or nearly so, and the gallbladder will contain stones and normal appearing bile.

Anatomic Observations.—There were a few adhesions of the serosa, otherwise normal, to the surrounding structures. The wall was thin. The mucosa showed white corrugations. There were numerous soft yellowish stones varying to 1 cm. in diameter. Microscopic examination showed the mucosa somewhat irregular, wanting in spots, but otherwise normal. There were a few areas of fibrosis in the submucosa. The muscularis was somewhat fragmented, showing fibrosis in certain areas. There was a marked round-cell infiltration in both submucosa and muscularis.

Case 2.—*History.*—A woman, aged 30, three years before admission had a sudden severe epigastric pain going round the right side to the back, followed by nausea and vomiting, with a residual soreness in the right upper quadrant of the abdomen. In the two years before admission she had several attacks of a similar nature followed by transient jaundice. In the last few days before coming to the hospital she suffered from more or less constant pain and distress in the upper part of the abdomen aggravated by "salty or fatty foods." There had been constipation for six months, but the patient had never been troubled with belching of gas or sour eructations.

Cholecystographic Examination.—At ten hours (intravenous) there was a faint, elongated, kinked shadow showing large negative shadows in the lower pole (fig. 4). One hour after a meal the shadow was very slightly reduced in size, the negative shadows still being present.

Interpretation of Cholecystograms.—The kinking of the shadow may be due to adhesions or to distortion from pressure by the duodenum or the colon. The production of a shadow indicates that the mucous membrane is active. The faintness of the shadow may be due to decreased function of the mucous membrane or to the fact that the gallbladder does not normally fill or empty. The very slight contraction of the shadow after a meal, together with the presence of mottling, would indicate that the faintness of shadow is due to imperfect filling and emptying owing to the presence of stones. The fact that the shadow is present at all, however, indicates that the musculature is functioning somewhat, otherwise there would be no emptying and consequently no entrance of dye into the gallbladder. This gallbladder, then, will be found distorted, possibly from adhesions. The wall probably will be slightly thickened but not markedly sclerotic. The mucous membrane will be only slightly abnormal, as will the musculature. The viscus will contain stones and normal appearing bile.

Anatomic Observations.—The gallbladder was long, but its external surface smooth and not adherent. It contained numerous faceted stones, varying in size up to an acorn. The wall was 1.5 mm. in thickness. Microscopic examination showed slight lymphocytic infiltration in the submucosa. The mucosa and muscularis were normal.

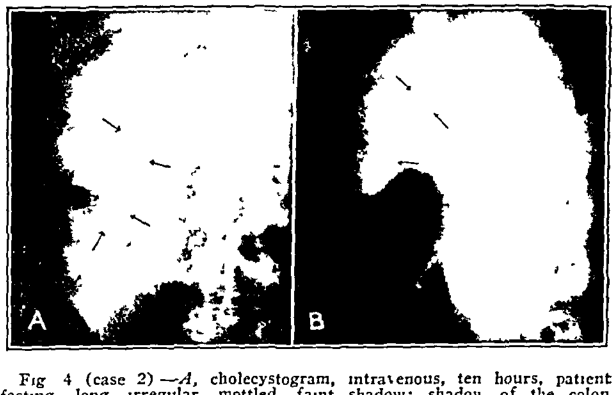

Fig 4 (case 2)—*A*, cholecystogram, intravenous, ten hours, patient fasting long, irregular, mottled, faint shadow; shadow of the colon laterally, and shadow of the duodenum crossing it. *B*, very slight reduction in size of shadow one hour after a fat meal, shift in position of the patient has thrown the shadow of the colon below and that of the duodenum mesial to the shadow of the gallbladder

Case 3.—*History.*—A single girl, aged 17, had always been more or less troubled by indigestion, not being able to eat rich foods without discomfort. Six years before admission she had been jaundiced and fifteen months before admission, after eating too much candy in the evening, she was seized with a sudden severe pressure pain in the epigastrium and lower part of the back, followed by nausea and vomiting. There were recurrences of a similar nature ten months and seven months before admission. She thought the attacks were more likely to come at night if she ate before going to bed. Lately she had had several attacks of nausea and vomiting with slight soreness and tenderness in the right upper and right lower quadrants of the abdomen.

Cholecystographic Examination.—At fifteen hours (oral) the shadow was regular in outline, slightly faint, and showed indefinite mottling (fig. 5). One hour after a fat meal the mottling was definite; the shadow had decreased one third in size.

Interpretation of Cholecystograms.—The interpretation in this case is similar to that in case 1. The faintness of the shadow may be due to dysfunction of the mucosa or to partial filling of the gallbladder with dye, owing to the presence of stones or débris. Contraction after the meal indicates a normal musculature. The gallbladder then will be found thin-walled, the mucosa essentially normal, with normal muscularis, and the viscus containing stones and normal bile.

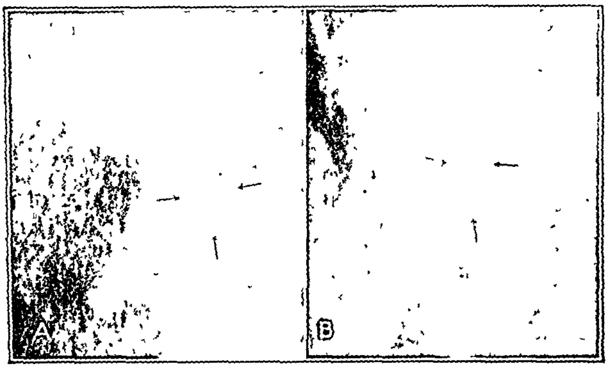

Fig. 5 (case 3).—*A*, cholecystogram, oral, fifteen hours, patient fasting: mottled shadow above the shadow of the colon and duodenum. *B*, reduction in size one hour after a fat meal, indicating muscular action; mottling confirmed, indicating stones.

Anatomic Observations.—The gallbladder was normal to external appearances. The wall was thin and soft, the mucosa was smooth, somewhat pale. Numerous stones were present. Microscopic examination showed a somewhat thickened, edematous wall with slight diffuse round-cell infiltration. The mucosa showed slight desquamation and a few eosinophils.

Case 4.—*History.*—A man, aged 46, nine months before admission had a sudden knifelike pain in the right flank, radiating round to the right costal margin. The pain was very severe, provoking nausea For two or three weeks before admission he was troubled with an aching distress in the right upper quadrant bearing no relation to meals. The day of admission he had another severe attack of pain similar to the first. He had never been jaundiced.

Cholecystographic Examination.—Only the lower end of the gallbladder was visualized (fig. 6). The shadow was moderately faint, with faint mottling by very fine negative shadows. One hour after a fat meal there was pronounced elongation with narrowing of the shadow. The mottling was brought out definitely. The largest negative shadow was 0.8 cm. in diameter.

Interpretation of Cholecystograms.—The contraction and elongation of the shadow after a fat meal indicate that the smooth muscle is active. The mottling in successive cholecystograms indicates stones. The gallbladder then will be found thin-walled with normal muscularis, normal mucosa, and containing stones up to 0.8 cm. in diameter, suspended in normal appearing bile.

Anatomic Observations.—The gallbladder was thin-walled. The mucous membrane was apparently normal. The viscus contained many faceted greenish stones, the largest about 0.9 cm. in diameter, in normal bile (fig. 7). The specimen was lost before microscopic sections could be made, but, except for the stones, there appeared to be no abnormality.

Case 5.—*History.*—A woman, aged 35, with three children, had been well until two years before coming to the hospital, when she had a sudden severe, crampy pain in the right upper quadrant of the abdomen radiating round to the back, accompanied by chilly sensations and vomiting, and followed by tenderness in the right upper quadrant. One month before admission she had another very severe attack of a similar nature followed by slight epigastric distress with gaseous and sour eructations after meals, which was aggravated by fried foods. She had never been jaundiced. On admission, she was two months pregnant.

Cholecystographic Examination.—At nineteen hours (oral) there was a faint shadow, fairly regular in outline, which showed faint mottling in the upper and outer part, outside the shadow of the duodenum and colon (fig. 8). One hour after a fat meal the shadow was decreased one half in size but still showed mottling.

Intepretation of the Cholecystograms.—The presence of a shadow and its reduction after a fat meal indicate that the mucosa and the muscularis are functioning, and consequently the wall will not be found markedly diseased. The mottling indicates stones which will be suspended in normal appearing bile.

Anatomic Observations.—The wall was moderately thickened, being about 4 mm. in diameter. The mucosa was normal in gross appearance. The gallbladder contained twenty stones, one of them 0.8 cm. in diameter. Microscopically the mucosa was in fairly good condition. The submucosa showed slight round-cell infiltration, and there was moderate thickening of the wall, the result of a chronic inflammatory process.

Case 6.—*History.*—A man, aged 60, had been in excellent health until seven years before admission, when he began to be troubled with epigastric distress, sour and gaseous eructations after meals, and constipation. Five years before admission he began to have attacks of palpitation and dyspnea, which later proved to be paroxysmal fibrillation. Six weeks before admission he had, in short succession, three attacks of very severe epigastric pain coming on an hour or two after eating rich food, and followed by vomiting.

Cholecystographic Examination.—There was a very faint shadow (intravenous), which was slightly irregular and showed definite mottling, a few of the negative shadows being nearly a centimeter in diameter (fig. 9). Two hours after a fat meal the shadow was decreased to one-third its original size with a slight increase in its density, the mottling being more definitely brought out.

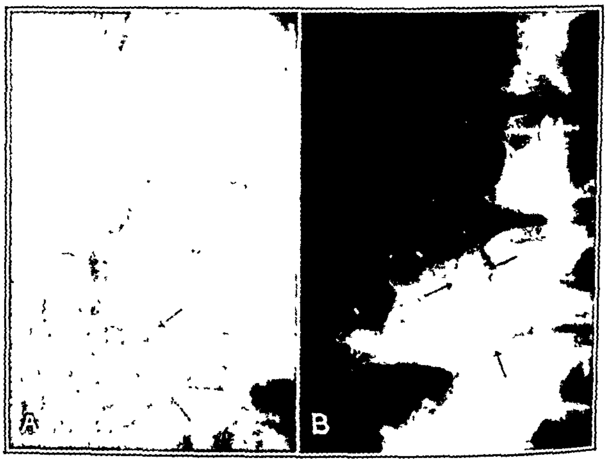

Fig. 6 (case 4).—*A*, faint, mottled shadow of the lower end of the gallbladder only; the probability here is that the rest of the viscus contains insufficient dye to show up, or that it bends sharply and recedes from the plate, with failure to cast a shadow. *B*, marked contraction, with elongation after a fat meal, indicating an active musculature; mottling confirmed; large circular shadow of a stone at the upper end. This large stone is seen in figure 7.

Interpretation of the Cholecystograms.—The faintness of the shadow means either a poorly functioning mucosa or that the gallbladder does not fill and empty properly. The mottling would indicate that the latter supposition is correct. It would seem that the mucosa is approximately normal on account of the increase in the density of the shadow as it decreases in size, in spite of the smaller volume of opaque material.[13] This gallbladder then will be found only moderately abnormal, its wall slightly thickened, its mucosa slightly diseased if at all, containing stones up to 1 cm. in diameter floating in normal bile.

Anatomic Observations.—There were a few fine adhesions to the serous surface. The wall was 2 mm. in diameter. The viscus contained many small stones, two of them 0.7 and 1 cm. in diameter, respectively. The mucosa was slightly eroded in places. Microscopically, the mucosa appeared normal, the submucosa was slightly infiltrated with round cells, and there were collections of round cells in the muscularis and subserosa, which were otherwise normal.

COMMENT

Every one of these patients had attacks of severe upper abdominal pain. It would seem probable that, since the musculature of the gallbladder was active in all, and stones were present in all, the reason for the pain was either the shutting down of the viscus on a mass of stones, or the expulsion of some of the stones into the bile ducts. Some of the patients had symptoms of epigastric distress and belching of gas with nausea, coming on from half an hour to two hours after meals, which might have been due to the reasons given above—contraction of the musculature on foreign particles, or expulsion of small stones or débris. Only one of the patients had jaundice following the attacks of pain, but this undoubtedly was due to the extrusion of a stone during the attack, with consequent blockage of the common bile duct. It is possible that some of the others also had partial blockage from small stones thrown out during the attacks, which might have been detected if the icterus index had been closely followed.

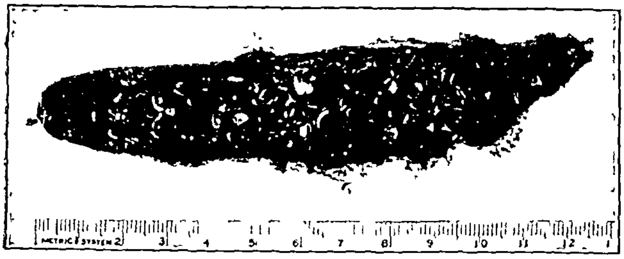

Fig. 7 (case 4).—Gallbladder as it was removed: numerous stones in normal bile, which produced mottling in figure 6; mucosa and wall normal in gross appearance.

Cases 5 and 6 are of unusual interest. Patient 5 was a pregnant woman. According to the foregoing method it was determined that she had cholelithiasis and that the musculature of the gallbladder was active enough to force out some of the stones. Consequently it was feared that she might have obstructive jaundice as a complication of the pregnancy. Since her condition was good, and it was known from interpretation of the cholecystograms that the operation would probably not be unusually difficult, it was decided to obviate the danger of such a complication by removing the gallbladder.

In case 6 there was a question as to whether the attacks of pain were due to cholelithiasis or to cardiac disease. Without the cholecystograms the diagnosis could not have been made. By interpretation of the cholecystograms, however, according to the foregoing method, not only was it shown that the attacks of pain were probably due to gallbladder disease, but the exact condition of the viscus was predicted.

There are certain cautions that must be observed with regard to deductions from faintness of the shadow or from variations in filling and emptying of the gallbladder. Shadows by the oral method vary greatly normally in their density. Consequently, much emphasis cannot be placed on the interpretation of faintness of shadow by this method. Also it has been shown in experimental animals that a weakened condition has a marked inhibitory effect on the emptying of the gallbladder after a fat meal.[6] Consequently, if the patient's condition is poor, too much emphasis cannot be placed on failure of the shadow to contract after a meal rich in fat.

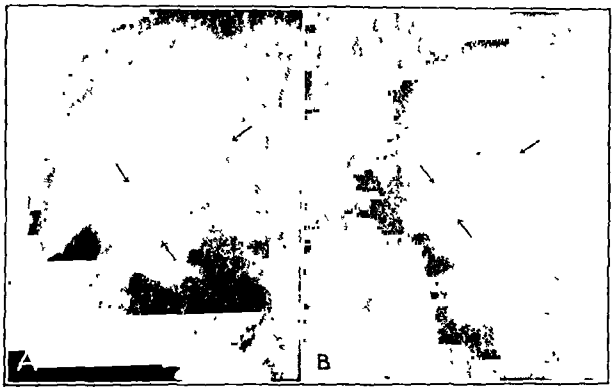

Fig. 8 (case 5).—*A*, cholecystogram, oral, fifteen hours, patient fasting: shadow mottled, indicating stones, above the overlapping shadow of the colon and duodenum. *B*, marked reduction one hour after a fat meal, indicating an active musculature in the presence of stones.

SUMMARY

1. The musculature is the agent that produces emptying of the gallbladder, and even in the presence of stones it may be actively functioning. Consequently, reflex symptoms of epigastric distress, gaseous eructations, nausea or vomiting may presumably result from contraction of the viscus on a mass of stones or débris following meals rich in fat; and in all probability typical gallstone attacks are produced by the active expulsion of stones into the bile ducts.

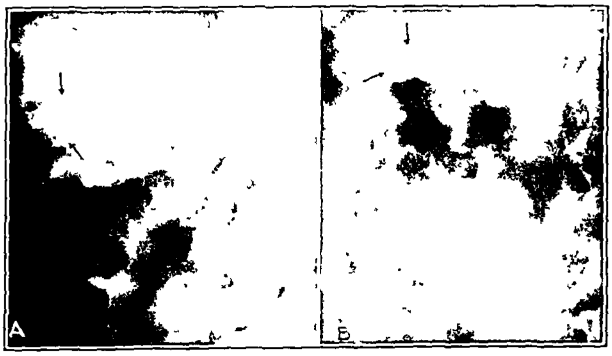

Fig. 9 (case 6).—*A*, cholecystogram, intravenous, twelve hours, patient fasting: small, very faint shadow which showed mottling on the film. *B*, marked reduction two hours after a fat meal, indicating an active musculature; mottling definite, indicating stones.

2. The important diagnostic criteria for cholecystography are:

For the normal gallbladder: (*a*) Filling with opaque dye, and shadow formation, indicating activity of the mucous membrane and a functioning musculature which periodically empties the viscus and allows refilling.

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13. Whitaker (footnote 6, second reference).

with slight soreness and tenderness in the right upper and right lower quadrants of the abdomen.

Cholecystographic Examination.—At fifteen hours (oral) the shadow was regular in outline, slightly faint, and showed indefinite mottling (fig. 5). One hour after a fat meal the mottling was definite; the shadow had decreased one third in size.

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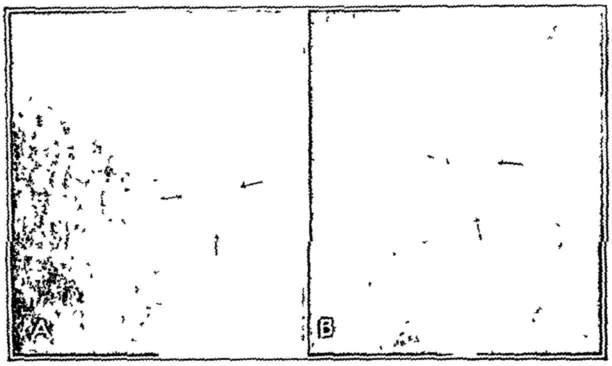

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CASE 4.—*History*.—A man, aged 46, nine months before admission had a sudden knifelike pain in the right flank, radiating round to the right costal margin. The pain was very severe, provoking nausea. For two or three weeks before admission he was troubled with an aching distress in the right upper quadrant bearing no relation to meals. The day of admission he had another severe attack of pain similar to the first. He had never been jaundiced.

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Cholecystographic Examination.—At nineteen hours (oral) there was a faint shadow, fairly regular in outline, which showed faint mottling in the upper and outer part, outside the shadow of the duodenum and colon (fig. 8). One hour after a fat meal the shadow was decreased one half in size but still showed mottling.

Intepretation of the Cholecystograms.—The presence of a shadow and its reduction after a fat meal indicate that the mucosa and the muscularis are functioning, and consequently the wall will not be found markedly diseased. The mottling indicates stones which will be suspended in normal appearing bile.

Anatomic Observations.—The wall was moderately thickened, being about 4 mm. in diameter. The mucosa was normal in gross appearance. The gallbladder contained twenty stones, one of them 0.8 cm. in diameter. Microscopically the mucosa was in fairly good condition. The submucosa showed slight round-cell infiltration, and there was moderate thickening of the wall, the result of a chronic inflammatory process.

CASE 6.—*History*.—A man, aged 60, had been in excellent health until seven years before admission, when he began to be troubled with epigastric distress, sour and gaseous eructations after meals, and constipation. Five years before admission he began to have attacks of palpitation and dyspnea, which later proved to be paroxysmal fibrillation. Six weeks before admission he had, in short succession, three attacks of very severe epigastric pain coming on an hour or two after eating rich food, and followed by vomiting.

Cholecystographic Examination.—There was a very faint shadow (intravenous), which was slightly irregular and showed definite mottling, a few of the negative shadows being nearly a centimeter in diameter (fig. 9). Two hours after a fat meal the shadow was decreased to one-third its original size with a slight increase in its density, the mottling being more definitely brought out.

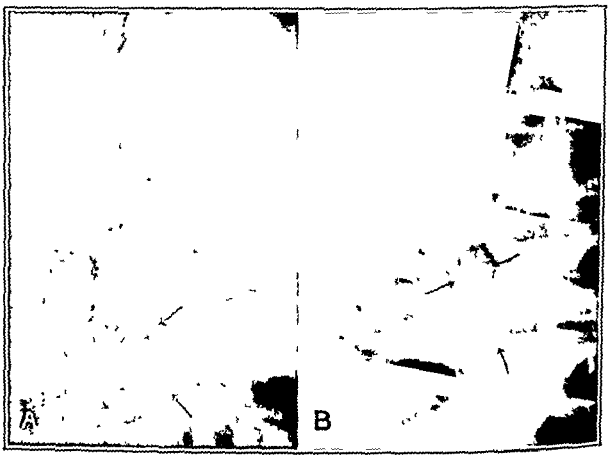

Fig. 6 (case 4).—*A*, faint, mottled shadow of the lower end of the gallbladder only; the probability here is that the rest of the viscus contains insufficient dye to show up, or that it bends sharply and recedes from the plate, with failure to cast a shadow. *B*, marked contraction, with elongation after a fat meal, indicating an active musculature; mottling confirmed; large circular shadow of a stone at the upper end. This large stone is seen in figure 7.

Interpretation of the Cholecystograms.—The faintness of the shadow means either a poorly functioning mucosa or that the gallbladder does not fill and empty properly. The mottling would indicate that the latter supposition is correct. It would seem that the mucosa is approximately normal on account of the increase in the density of the shadow as it decreases in size, in spite of the smaller volume of opaque material.[13] This gallbladder then will be found only moderately abnormal, its wall slightly thickened, its mucosa slightly diseased if at all, containing stones up to 1 cm. in diameter floating in normal bile.

Anatomic Observations.—There were a few fine adhesions to the serous surface. The wall was 2 mm. in diameter. The viscus contained many small stones, two of them 0.7 and 1 cm. in diameter, respectively. The mucosa was slightly eroded in places. Microscopically, the mucosa appeared normal, the submucosa was slightly infiltrated with round cells, and there were collections of round cells in the muscularis and subserosa, which were otherwise normal.

COMMENT

Every one of these patients had attacks of severe upper abdominal pain. It would seem probable that, since the musculature of the gallbladder was active in all, and stones were present in all, the reason for the pain was either the shutting down of the viscus on a mass of stones, or the expulsion of some of the stones into the bile ducts. Some of the patients had symptoms of epigastric distress and belching of gas with nausea, coming on from half an hour to two hours after meals, which might have been due to the reasons given above—contraction of the musculature on foreign particles, or expulsion of small stones or débris. Only one of the patients had jaundice following the attacks of pain, but this undoubtedly was due to the extrusion of a stone during the attack, with consequent blockage of the common bile duct. It is possible that some of the others also had partial blockage from small stones thrown out during the attacks, which might have been detected if the icterus index had been closely followed.

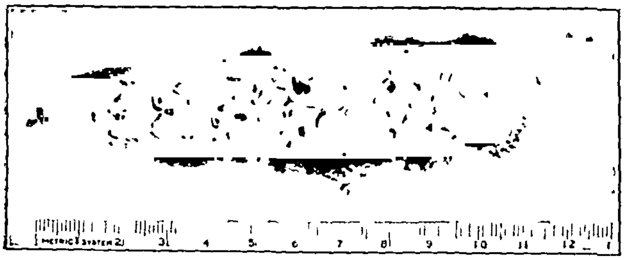

Fig. 7 (case 4).—Gallbladder as it was removed: numerous stones in normal bile, which produced mottling in figure 6; mucosa and wall normal in gross appearance.

Cases 5 and 6 are of unusual interest. Patient 5 was a pregnant woman. According to the foregoing method it was determined that she had cholelithiasis and that the musculature of the gallbladder was active enough to force out some of the stones. Consequently it was feared that she might have obstructive jaundice as a complication of the pregnancy. Since her condition was good, and it was known from interpretation of the cholecystograms that the operation would probably not be unusually difficult, it was decided to obviate the danger of such a complication by removing the gallbladder.

In case 6 there was a question as to whether the attacks of pain were due to cholelithiasis or to cardiac disease. Without the cholecystograms the diagnosis could not have been made. By interpretation of the cholecystograms, however, according to the foregoing method, not only was it shown that the attacks of pain were probably due to gallbladder disease, but the exact condition of the viscus was predicted.

There are certain cautions that must be observed with regard to deductions from faintness of the shadow or from variations in filling and emptying of the gallbladder. Shadows by the oral method vary greatly normally in their density. Consequently, much emphasis cannot be placed on the interpretation of faintness of shadow by this method. Also it has been shown in experimental animals that a weakened condition has a marked inhibitory effect on the emptying of the gallbladder after a fat meal.[6] Consequently, if the patient's condition is poor, too much emphasis cannot be placed on failure of the shadow to contract after a meal rich in fat.

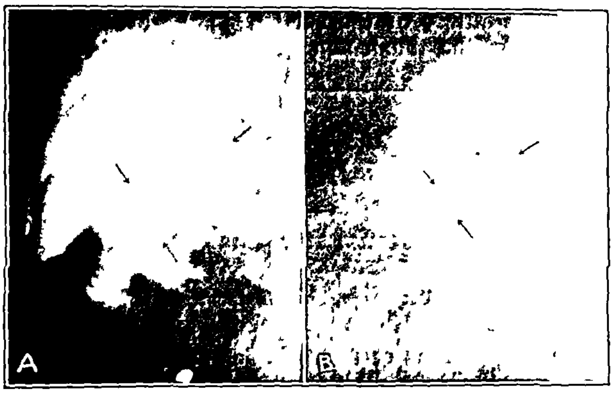

Fig. 8 (case 5).—*A*, cholecystogram, oral, fifteen hours, patient fasting: shadow mottled, indicating stones, above the overlapping shadow of the colon and duodenum. *B*, marked reduction one hour after a fat meal, indicating an active musculature in the presence of stones.

SUMMARY

1. The musculature is the agent that produces emptying of the gallbladder, and even in the presence of stones it may be actively functioning. Consequently, reflex symptoms of epigastric distress, gaseous eructations, nausea or vomiting may presumably result from contraction of the viscus on a mass of stones or débris following meals rich in fat; and in all probability typical gallstone attacks are produced by the active expulsion of stones into the bile ducts.

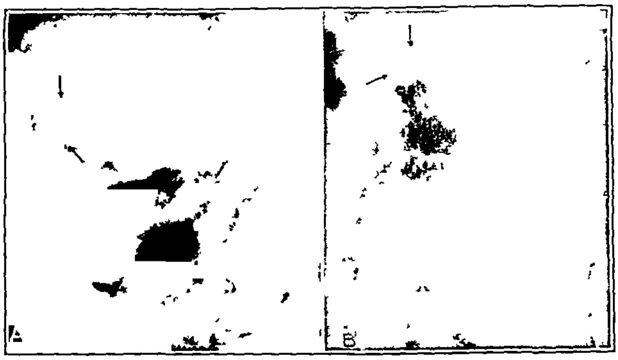

Fig. 9 (case 6).—*A*, cholecystogram, intravenous, twelve hours, patient fasting. small, very faint shadow which showed mottling on the film. *B*, marked reduction two hours after a fat meal, indicating an active musculature; mottling definite, indicating stones.

2. The important diagnostic criteria for cholecystography are:

For the normal gallbladder: (*a*) Filling with opaque dye, and shadow formation, indicating activity of the mucous membrane and a functioning musculature which periodically empties the viscus and allows refilling.

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[13] Whitaker (footnote 6, second reference).

(*b*) Gradual reduction and disappearance of the shadow within two to three hours after a fat meal, indicating an active musculature and the absence of débris.

For the abnormal gallbladder: (*a*) Failure to fill and failure of shadow formation, indicating blockage of the cystic duct, destruction of the mucosa, the occupation of the viscus with foreign material, or lack of normal emptying of the gallbladder from damage to its musculature.

(*b*) Mottling of the shadow in the area not overlapped by the duodenum or colon, indicating stones.

Clinical Notes, Suggestions, and New Instruments

METHOD OF PROTECTING THE WRIST, HAND OR FINGERS DURING AN OPERATION

D. C. Patterson, M.D., Bridgeport, Conn.

The accompanying illustrations show a method of protecting the wrist, hand or fingers during an operation, which I have found extremely satisfactory. The method is probably in use elsewhere, though I have never seen it used.

It is difficult in operations on the hand or fingers to keep the ordinary sterile coverings in place. It is also difficult to disinfect the fingers thoroughly on account of the nails.

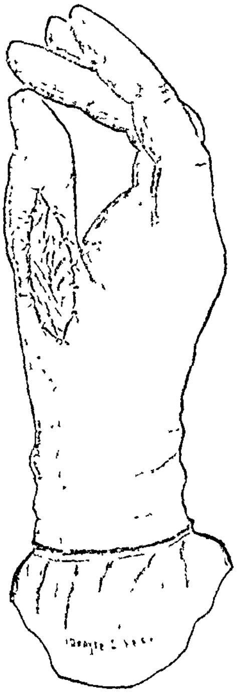

Fig. 1.—Method of using glove protection for incision on thumb.

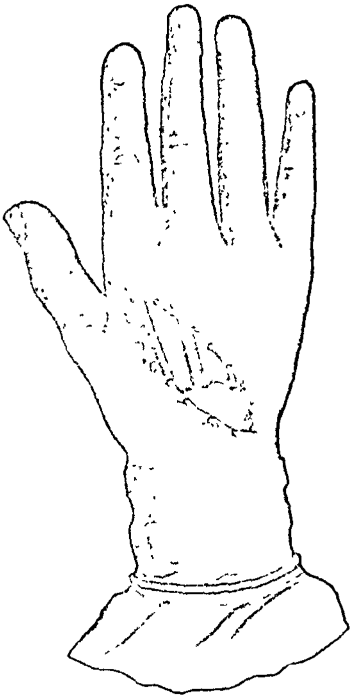

Fig. 2.—Method of using glove protection for incision on dorsal surface of hand.

The method consists in putting ordinary sterilized, surgeon's rubber gloves on the hand to be operated on. Before the gloves are applied, the field of the operation is, of course, prepared as usual.

When incision is to be made on the hand or a finger, the line of incision is exposed by cutting a slit in the glove. The margin of this slit can be fixed at the edge of the skin wound by small skin clips, thus minimizing the danger of skin contamination.

Medical Building.

CLINICAL ADVANTAGES OF THE DOUBLE STETHOSCOPE

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One annoyance that has confronted teachers of physical diagnosis has been that the student loses the characteristics of the sound to which he is listening while changing the position of his stethoscope on the human chest. The same difficulty is magnified while teaching men the normal sounds of the lung over different areas of these organs. Again, while changing the stethoscope disk from over the apex of the heart to the second aortic cartilage, the student invariably loses the rhythmic phenomenon, which is the essential phase that distinguishes between systolic and diastolic murmurs.

In studying the auscultatory signs over consolidated areas of the chest, whether these be dependent on acute inflammatory processes, fluid or new growths, the occurrence of foreign sounds, while the stethoscope disk is being moved, often becomes very annoying and confusing. The student is frequently unable to recognize and differentiate the sounds over these pathologic and normal portions of the lung, because of the admission of adventitious sounds.

I first started by using the multiple stethoscope with a single large disk, five students listening with me; and with this device I succeeded in overcoming certain of the foregoing difficulties.

It was not until three years ago that I first conceived the idea of using the double stethoscope, such as is here illustrated, several modifications of which have been employed. I am indebted to Messrs. George P. Pilling & Son, who have turned over to me the services of their technical mechanics (fig. 1).

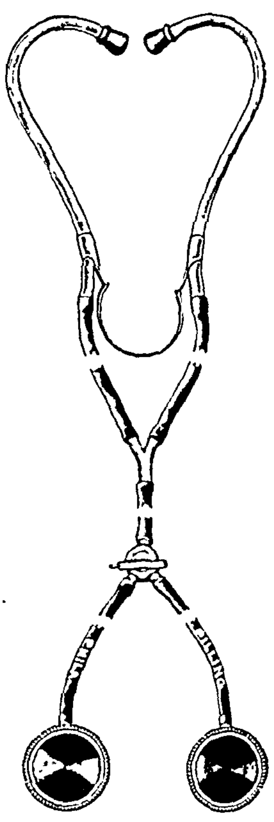


Fig. 1.—Double stethoscope with bivalve switch.

This stethoscope differs from other stethoscopes ordinarily in use in that it consists of two Bowles disks. The disks are connected by rubber tubing with a central Y bivalve switch attachment. Through this central attachment, vibrations from either disk can be excluded or allowed to pass to the ears. Sound received through one of the disks may be analyzed and a mental record of its characteristic features obtained. Without changing the disks or removing the ear pieces, one can turn the switch valve and make the same clinical, auditory record over another portion of the body.

USES

This stethoscope has been in continuous use for the last two years in the Philadelphia General Hospital and has been found of service in both teaching and bedside work.

One disk is placed over an area of consolidated lung and the other disk over the same anatomic area of the uninvolved lung (figs. 2 and 3). It requires only a few seconds to impress indelibly on the student the characteristic auditory phenomena that are obtained over pneumonic lung and over compensatory emphysematous lung.

In the teaching of egophony (a peculiar nasal, bleating quality of voice heard at about the level of a pleural effusion when the patient is directed to count), this stethoscope serves admirably. The switch valve when open to the disk immediately above the fluid will convey the characteristic voice sounds known as egophony. Following a turn of the switch, normal vocal resonance is elicited through the other disk.

During the study of cardiac murmurs I have found the double stethoscope equally helpful in training the student to distinguish between the first and the second sounds of the heart, and further to determine with which portion of the cardiac cycle murmurs are audible.

In studying a patient who has present two cardiac murmurs, one located at the aortic cartilage and the other at the apex, one disk should be placed over the aortic cartilage and the other over the apex of the heart. Manipulation of the switch makes it possible to correlate the auditory evidences received from these two clinical areas. The student quickly grasps a definite clinical conception of a systolic murmur heard at the apex and a diastolic murmur heard at the aortic area.

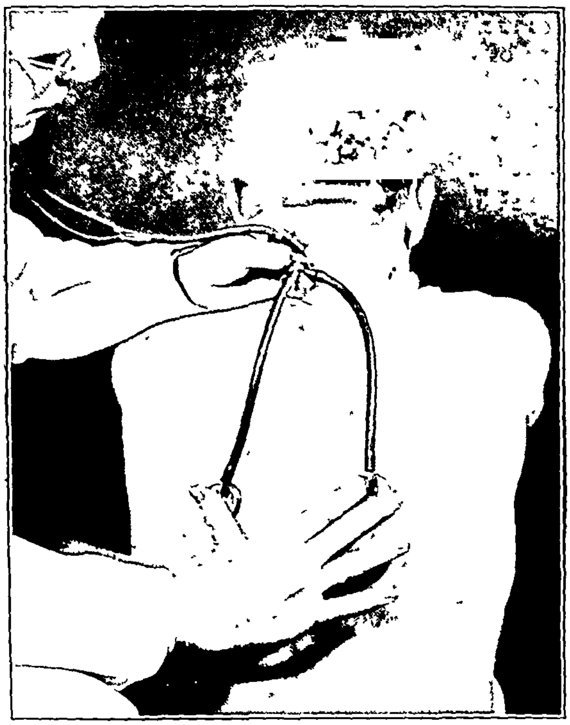


Fig. 2.—Disks placed over the bases of the chest. Manipulation of the switch enables one to admit or exclude the sounds from one or the other lung.

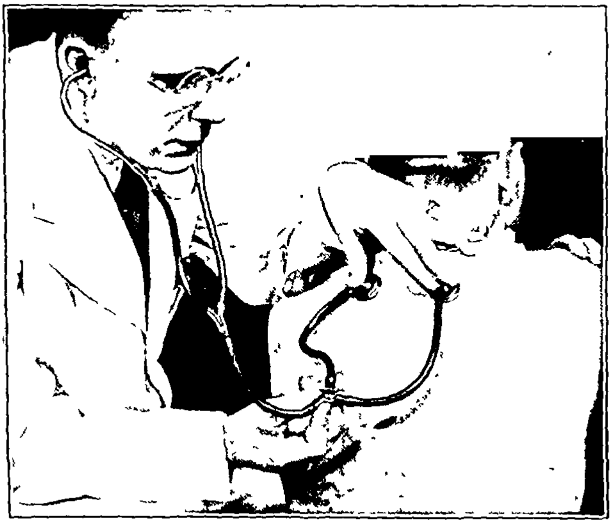


Fig. 3.—The inner border of the scapula when the patient's arms are folded and each hand is on the opposite shoulder is a favorable site to obtain auditory data in early pulmonary tuberculosis.

I have also employed this stethoscope in the study of various degrees of consolidation of the lung, using the tuning fork, Compt's stroking of the skin, and auscultatory percussion.

In abdominal diagnosis the double stethoscope is of considerable service when ausculting over the course of the colon. One disk is placed over the site of an inflamed appendix and the other disk over a corresponding area in the left inferior abdominal quadrant. There is always a decided difference in the gurgling over these two areas, but in no other way have I been able to teach this subject so satisfactorily.

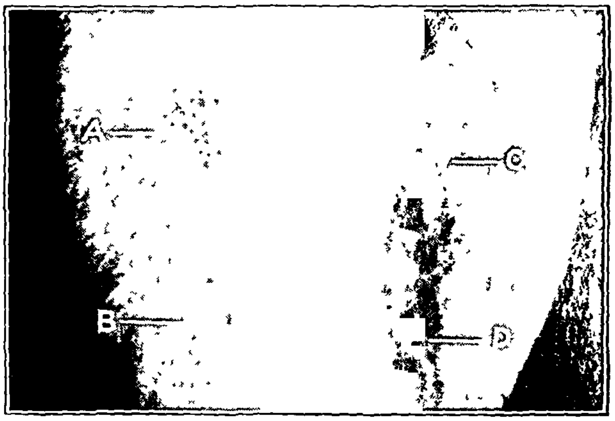
The double stethoscope has been employed in a study of the bone cavities, particularly the antrums, by Dr. Austin A. Hayden.[1]

The double stethoscope, while of special importance in the teaching of physical diagnosis, will, I believe, be found of service by the astute diagnostician in the elucidation of such problems as: (1) a comparative study of the apexes of the lungs, in incipient tuberculosis; (2) the degree of accentuation of the aortic and pulmonic second sounds of the heart in pulmonary and systemic circulatory embarrassment; (3) the study of systolic aortic, systolic mitral, and systolic tricuspid murmurs, a detailed account of which procedures need not necessarily be given here.

LOCALIZATION OF CHICKENPOX LESIONS AT THE SITE OF PREVIOUS SKIN TESTS

Edgar E. Martmer, M.D., Detroit

The reappearance of a positive Dick reaction during an attack of measles was first reported by Ferry.[2] Subsequently, Toomey[3] reported fifteen cases in which the Dick reaction reappeared during an attack of scarlet fever, and one case similar to Ferry's. He also reported the reappearance of a positive tuberculin reaction in a patient having measles.



Sites of injection of: *A*, Dick test; *B*, measles test; *C*, puerperal sepsis, and *D*, erysipelas toxin.

The case reported here differs in some respects from those previously mentioned, though the underlying cause may be the same.

REPORT OF CASE

Feb. 20, 1927, I was called to see E. M. B., a medical student, aged 20, who, February 5, had been exposed to chickenpox. February 10, he was tested with four toxins at points *A*, *B*, *C* and *D* by Drs. N. S. Ferry and H. L. Clark. At point *A* he received Dick toxin; at *B*, measles toxin (Ferry); at *C*, puerperal sepsis streptococcus toxin, and at *D*, erysipelas streptococcus toxin. The following day he showed a reaction to all the toxins except the measles toxin. Having had measles, this was to be expected. By the following day the reactions had disappeared.

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[1] Hayden, A. A.: Auscultation and Percussion in the Diagnosis of Accessory Nasal Sinus Disease, J. A. M. A. 87: 1390 (Oct. 23) 1926.

[2] Ferry, N. S.: Reappearance of Reaction at Site of Previous Dick Test, Coincident with Appearance of Measles Rash in a Case of Measles, J. A. M. A. 87: 241 (July 24) 1926.

[3] Toomey, J. A.: Reappearance of a Positive Dick Test, J. A. M. A. 87: 941 (Sept. 18) 1926.

Saturday, February 19, he complained of a headache and some soreness of the throat, and Sunday, February 20, he developed a typical chickenpox eruption. The photograph, taken February 21, shows the localization of the chickenpox vesicles at points *A*, *C* and *D*, but no increase in their number at *B*, where he gave a negative reaction.

This case, therefore, differs from those reported by Ferry and Toomey in that, whereas they noted the reappearance of the reaction to Dick toxin, in this case there was no reappearance of the reaction to the various toxins used, but rather a localization of the chickenpox lesions in those areas in which reaction had occurred.

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Special Article

THE STATUS OF INTRAVENOUS THERAPY

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Special Committee Appointed by the Therapeutic Research Committee of the Council on Pharmacy and Chemistry

I. INTRODUCTION

The intravenous administration of remedial agents is a procedure that deserves to be placed on a much more secure and rational foundation of scientific knowledge than is at present the case. Under certain circumstances this form of therapy, when carried out properly, has proved to be of the greatest value. The conditions in which its value has been established, along with the details essential to its safe and effective employment, should be known by all physicians. The dissemination of this knowledge is deemed one of the most important functions of the committee.

While recognizing and urging the value of intravenous therapy under appropriate conditions, it is equally important to emphasize the fact that the injection of any foreign substance directly into the human blood stream is always a serious undertaking. There are many conditions in which the risks inherent in intravenous therapy may greatly outweigh the real or supposed advantages which are claimed for the procedure. This is particularly likely to be the case with the more or less potent drugs. There is also a growing tendency on the part of many to resort to intravenous injection under conditions in which it is of dubious value, if not potentially harmful. Finally, there are circumstances in which the dangers of intravenous medication are well recognized, but in which they must be accepted for the sake of the probable advantages to the patient, just as surgical operations must be performed at times in the face of obviously grave risks. The committee plans to consider each of these groups of problems and proposes to publish a series of reports on various aspects of the subject. The committee also wishes to lend its active support to further researches which will promote more accurate understanding of the scope and limitations of the method.

This introductory report will present a general review of the more or less well established indications and contraindications for intravenous therapy. A brief outline of certain of the more important points in the technic of the preparation and injection of the solutions will be given, and the major dangers will be enumerated. Details will be omitted, as they will be discussed in the ensuing reports, in which individual agents or groups of agents will be considered.

INDICATIONS

1. As an emergency measure, when rapidity of action is paramount: In cases of shock, toxemia and hemorrhage, saline or glucose infusions or less frequently infusions of gum-glucose or Locke's solution are often of great value in restoring blood volume and in overcoming dehydration.

To combat severe acidosis, the infusion of saline sodium bicarbonate or glucose solutions, or combinations of them, may be life saving.

In diabetic coma the intravenous administration of insulin, with or without the simultaneous infusion of glucose, may prevent untimely death.

Calcium chloride may be given by vein in severe forms of tetany.

Increased intracranial pressure may be relieved by the injection of hypertonic solutions of sodium chloride.

Acute circulatory collapse sometimes responds to the slow injection of weak solutions of epinephrine in physiologic sodium chloride solution.

Occasionally, the intravenous administration of ouabain or of amorphous strophanthin will restore patients with cardiac failure when almost moribund.

In the malignant forms of malaria it is the accepted practice to administer the first few doses of quinine by vein.

Neglected late and severe cases of diphtheria often demand the intravenous use of antitoxin, and sometimes respond to it favorably.

2. When greater intensity of action is required than can be secured by other methods: Many antitoxic and immune serums are absorbed slowly from the subcutaneous or intramuscular tissues, and their intravenous administration may be demanded by the severity of the disease. In this group are the antitoxic serums for diphtheria and tetanus, antimeningococcus serum, antistreptococcus serum (especially scarlet), antipneumococcus serum and pneumococcus antibody.

Nonspecific proteins, which are used for the purpose of inducing protein shock, are often best given by vein, as in the case of typhoid vaccine in the treatment of chronic arthritis.

3. When the volume of the dose is large: This is frequently the case when saline or glucose solutions, serums and serum substitutes are required. Whenever volumes of 100 cc. or more are required, intravenous administration is preferable to intramuscular or subcutaneous, except in the case of simple hypodermoclyses.

4. To avoid irritation or destruction of the tissues at the site of injection: This is the chief reason for the practice of injecting arsphenamine and neoarsphenamine intravenously, and is an important reason for this mode of administration for quinine, the dyestuffs, colloidal metals, alkali and other irritant agents.

5. To secure direct action within the blood stream: Intravenous injection is practiced in the case of quinine in malignant malaria and of the dyes and collodial metals in sepsis with the purpose of securing an immediate, direct destructive action on the infecting organism within the blood stream. It is doubtful whether this purpose is accomplished to any significant degree, as most agents leave the blood stream very rapidly. It is also equally doubtful whether this practice is based on a correct conception of the pathologic conditions present in sepsis. Recent evidence suggests that in sepsis the organisms would be best attacked in the focus from which they are being liberated, rather than during the brief period of their presence in the blood stream.

When intravenous therapy is really indicated it should not be left as a last resort, but the patient should be given the benefit of its prompt employment.

CONTRAINDICATIONS

1. In the absence of the foregoing indications, intravenous therapy is rarely justified if the desired effect may be secured by the more usual modes of administration.

Thus, hypodermoclysis is usually effective for the relief of dehydration; the intramuscular injection of sulpharsphenamine is probably as effective in the control of syphilis as is the use of arsphenamine by vein, and very few cases of heart failure are so urgent that they cannot be brought under control sufficiently rapidly by the intramuscular injection of ouabain, strophanthin, or the oral administration of appropriate doses of digitalis. When ouabain or strophanthin is injected intramuscularly, the site of the injection should be massaged vigorously for about ten minutes. This minimizes the local pain which might otherwise result and hastens its absorption. The usual dose is from 0.25 to 0.5 mg. The difference in the rapidity with which the therapeutic action of most agents can be secured by the several modes of administration is only occasionally of sufficient importance to warrant resort to the more difficult practice of intravenous administration, the promiscuous use of which may be dangerous.

2. The risks of intravenous injection frequently outweigh its probable benefits in: (*a*) greatly weakened patients; (*b*) the aged; (*c*) at times, patients with hypertension, arteriosclerosis or heart disease; (*d*) patients known to be, or suspected of being hypersensitive to one or more proteins, such as patients with asthma, hay-fever or urticaria, and (*e*) patients known to have drug idiosyncrasy.

3. The following classes of agents are generally unsuitable for intravenous use: (*a*) substances of complex composition; (*b*) imperfectly purified substances; (*c*) substances which are definitely acid or markedly alkaline in reaction; (*d*) substances which do not yield clear solutions in aqueous mediums, or which fail to yield satisfactory colloidal solutions; (*e*) emulsions of fats and oils; (*f*) suspensions, unless extremely fine and very dilute, and (*g*) very potent pharmacologic agents, and those which have several different major actions.

TECHNIC

One should not resort to intravenous therapy until one has thoroughly familiarized oneself with every detail of technic, the observance of which may enhance the comfort and safety of the patient. The matter of technic is of paramount importance, and many of the disturbing reactions and dangers of this form of therapy can be minimized by proper attention to details. Space permits only a brief general review of the more important matters in this report.

1. The solutions: Distilled water frequently contains a pyrogenic substance which is the product of its contamination with living organisms[1] carried over in the process of distillation. This pyrogen is produced by growth of the organisms and is not present in freshly distilled water. The water to be employed should therefore never be more than a few hours old unless properly preserved. It seems probable that this contamination may be prevented by the use of an effective spray catching trap, and if such water is prepared, sterilized immediately and properly preserved, it is possible to keep it for long periods of time without its becoming dangerous for use. It is easier, however, and safer to employ only water that has been properly distilled within a very few hours of its use. The water should be distilled and collected in an apparatus made entirely of glass to avoid chemical contamination. The ordinary commercial distilled waters should never be used if they can be avoided. There are available, however, several especially prepared and preserved distilled waters which seem to be satisfactory in all respects.

2. The agents employed: In general, only such drugs and other agents should be used as are of established purity; and when this cannot be determined by chemical examination, it should be checked by suitable animal tests. Some samples of glucose, supposedly chemically pure, were found unfit for intravenous injection.

3. Sterility: This should be insured by resterilization of the finished solutions in the autoclave immediately after their preparation unless heat is injurious to the ingredients.

4. Decomposition: Special attention must be given to the prevention or correction of decomposition during the process of sterilization. Heat, for instance, converts a part of sodium bicarbonate into the much more alkaline and caustic carbonate. This may be corrected after final sterilization by passage through the solution of sufficient carbon dioxide to insure reconversion into bicarbonate. In other instances the sterile, dry drug may be dissolved, under conditions of the strictest asepsis, in the fresh distilled water at the time of use. Some substances, such as ouabain and strophanthin, may undergo complete destruction and become inert when their solutions are put up in soft glass ampules, owing to the liberation of alkali from the glass. When using commercial solutions one should be careful to make sure that they are preserved in a suitable amphoteric medium or are marketed in "hard glass" ampules.

5. Reaction: All solutions should conform as closely as possible to the reaction of the normal blood, which is slightly on the alkaline side of neutrality—p_H 7.4. The use of "buffer" salts for the control of the reaction of solutions for intravenous injection has been

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[1] Seibert, F. B.: The Cause of Many Febrile Reactions Following Intravenous Injections, Am. J. Physiol. **71**: 621 (Feb.) 1925.

suggested, but they are not to be recommended unless it is known definitely that they do not react with the therapeutic agent that is to be employed. When the solution of a drug cannot be brought to approximately the normal alkalinity of the blood, it should be administered in small amounts and injected very slowly. An exception to the foregoing occurs, of course, when the object is to alter an abnormal blood reaction, as in the use of alkali in acidosis.

6. Isotonicity: Solutions should generally be nearly isotonic with the blood, especially when the volume to be injected is at all large. The important exceptions are the use of hypertonic solutions for the purpose of influencing the total blood volume, intracranial pressure and other conditions in which the abstraction of water is desired.

7. Rate of Injection: Intravenous injections should always be given slowly. Rapid administration introduces several hazards: (*a*) the danger of overwhelming the heart and circulation with too great a volume of fluid; (*b*) the risk of breaking down such compensatory mechanisms as those which maintain the reaction of the blood, its osmotic tension, its viscosity and the like within the very narrow limits of normality, and (*c*) the likelihood, especially in the case of active drugs, of having them carried to the heart, the central nervous system or other vital structures in dangerously high concentration. It is often advantageous to resort to intermittent injections, permitting satisfactory dilution by the blood stream and allowing the heart time to empty itself of the more concentrated solutions.

8. Temperature: The temperature of the solution to be administered should be approximately that of the body, especially when a considerable volume is to be injected. This often necessitates the use of special apparatus to keep the solution from cooling during the course of injection.

9. Miscellaneous: It is scarcely necessary to mention the need for strict asepsis and the sterility of all apparatus employed. The technic of asepsis should be as rigorous as that for any other surgical operation. If rubber tubing is used, as in the gravity method, it should be selected to insure its freedom from the liberation of toxic substances, especially antimony compounds. The needle should be as small as will serve in each instance; it should be extremely sharp, and the point should have a very short bevel to prevent injury to the vein or its complete transfixion. Meticulous care should be observed to make sure that none of the solution is allowed to escape into the perivascular tissues, and it is often advisable at the close of the injection of an irritant agent to wash out the vein by the injection of a small amount of physiologic sodium chloride solution.

DANGERS

Many of the more obvious dangers have been mentioned in the review of technic and the means of avoiding them suggested. There are other dangers less obvious and far more difficult to avoid. These are the risks which are inherent in the introduction of any foreign substance into the blood stream in which the integrity of a multiplicity of chemical, physiologic and physicochemical balances must be maintained as essential to life. When one considers the nicety with which these balances must be preserved, the grave consequence of their disturbance and the relative ease with which they may be upset, it is truly remarkable that there are not many more serious accidents than seems to be the case. However, if intravenous injection is to maintain its rightful place in therapeutics, it is essential that its development shall proceed deliberately along scientific lines in the laboratories of pharmacology, physiology and biochemistry, and in properly equipped hospitals. At the moment, various agents are being injected into the veins of man in a haphazard, empiric and irrational manner. Continuance of this practice will surely bring the method into a degree of disrepute comparable to its present unwarranted popularity, and much of value will be lost thereby, for a time at least.

II. INTRAVENOUS ADMINISTRATION OF WATER, SALTS AND GLUCOSE

There is a legitimate and growing field for intravenous treatment, and the indications and contraindications for it are becoming more sharply defined. This form of treatment is considered so important in the Mayo Clinic that it is handled by a special committee appointed to consider matters such as when and where it shall be employed, the materials to be used, the purity of drugs, the adequate daily supply of distilled water, and the methods of preparation and administration. Chemical studies of the blood, and medical consultation usually precede the employment of the intravenous method. All of the solutions are freshly prepared with meticulous care and given slowly at body temperature at the rate of from 10 to 20 cc. a minute. When due care is exercised in the selection of cases and in the preparation and administration of the solutions, the effects are held by this group to be most satisfactory.

Despite the dangers attending the intravenous use of drugs, water, salts and glucose are given in considerable amounts in this manner for various disorders. These substances represent normal body constituents, but it must be remembered that normality in the body depends on the maintenance of the equilibrium or proper relationships of various substances. Health demands a *milieu intérieur* which is practically constant. Such a state exists in the blood and tissue juices. In health, the volume and composition of the blood are kept practically constant by a complicated but extremely effective mechanism. In certain diseases, however, the blood is changed in volume or composition, and the addition to it of water, salts or glucose may prove of definite benefit to the organism. Obviously, except in emergencies, these substances should be given by mouth so long as this method of administration is feasible and compatible with normal absorption. If this fails, proctoclysis and hypodermoclysis should next be considered. However, if the need is urgent and other channels of administration are precluded, the administration of sodium chloride or glucose solution intravenously is justified.

INDICATIONS FOR INTRAVENOUS MEDICATION

The main purpose of the intravenous use of saline and glucose solutions are: (1) to increase blood volume, restore failing circulation and combat dehydration; (2) to combat toxemia; (3) to supply glucose or energy; (4) to combat acidosis; (5) to supply certain salts specifically indicated, and (6) to effect dehydration, as in increased intracranial pressure.

Increase of Blood Volume, Restoration of Failing Circulation and Combating Dehydration.—The intravenous injection of glucose and salt solution is indicated in cases of shock to restore failing circulation, increase blood volume and restore fluid loss. In surgical shock, the results of transfusion are often disappointing, owing possibly to increased capillary permeability, which permits fluids, salts, and even plasma proteins to leak out of the blood vessels into the tissues. Apparently the great need in cases of surgical shock is the restoration of circulating fluids. During the war resort was had to colloid solutions, such as gum acacia, which were introduced intravenously in large quantities; such solutions were apparently more effectively retained than simple sodium chloride solutions, and the procedure was considered life-saving in many instances. Several accidents have occurred from the use of gum acacia, but these could probably have been avoided by greater care in the selection of the acacia and the preparation of its solution.

In cases of dehydration, as after gas poisoning or excessive burns, the administration of sodium chloride solution intravenously may sometimes save life.

Combating the Effects of Toxemia.—Sodium chloride solution is administered intravenously to combat various forms of toxemia. The toxemia accompanying high intestinal obstruction or stasis is usually evidenced by vomiting, dehydration and concentration of the blood. Clinically there are redness of the hands and face, a low blood pressure, oliguria, psychic and mental disturbance, and sometimes symptoms of tetany and uremia. A study of the chemistry of the blood in such cases reveals a high level of urea, a low level of blood chloride and alkalosis, with an increase in the carbon dioxide carrying capacity of the plasma. In many cases, this condition leads quickly to fatal consequences. The intravenous administration of 1 liter of a 1 per cent solution of sodium chloride two or three times a day usually results in a striking improvement of symptoms and a gradual return to normal proportions of the chemical constituents of the blood. In cases of pyloric obstruction, the risks of surgical operation may be diminished greatly by the preoperative injection of sodium chloride solution. The use of this solution is also beneficial postoperatively, particularly in cases evidencing inhibition of motor function after operation on the stomach and duodenum. If the condition is of long standing and inanition is marked, the addition of glucose up to 5 or 10 per cent is desirable. Locke's solution may be substituted, but sodium chloride appears to be the salt most crucially needed. If tetany is profound, injections of 5 cc. of a 10 per cent solution of calcium chloride may prove immediately helpful in the control of neuromuscular manifestations. Similarly, many patients with asthenic uremia who are definitely dehydrated frequently make immediate and sustained improvement following the intravenous administration of solutions of glucose. They are thus tided over a critical period.

During postoperative drainage of the gallbladder or of the common duct, a form of toxemia may sometimes occur which is accompanied by the decreased excretion of bile or by the excretion of a pale or colorless bile, and sometimes by extreme malaise, oliguria and dehydration. A chemical study of the blood usually reveals high blood urea and sometimes acidosis. Under these conditions, the administration of a 5 per cent solution of sodium bicarbonate, a 1 per cent solution of sodium chloride or a 5 to 10 per cent solution of glucose either alone or in combination, in amounts of 1 liter, often leads to immediate clinical improvement and an increase in the output of bile pigments.

The intravenous injection of glucose solution has recently been gaining favor among obstetricians for the treatment of excessive vomiting of pregnancy and following venesection in the treatment of eclamptic convulsions. Its use is recommended only after milder measures have failed. From 500 to 1,000 cc. of a 10 or even 20 per cent solution may be given. When the stronger solution is employed some obstetricians advocate simultaneous administration of small doses of insulin.

The Supply of Glucose in Hypoglycemia.—In severe cases of diabetes the occasional administration of overdoses of insulin may result in shock in which the patient may lose consciousness and become unable to swallow. Under such circumstances the hypoglycemia may be combated expeditiously by the intravenous administration of 10 to 20 Gm. of glucose (100 cc. of 10 or 20 per cent solution).

Combating Acidosis.—In diabetic coma, it is important to attack acidosis promptly, and also to provide fluids in large quantity. The subcutaneous administration of insulin will usually suffice for the control of the acidosis, but if the alkali reserve persists at a very low level it may be restored by the intravenous injection of 1 liter of a 5 per cent solution of sodium bicarbonate. Some feel, however, that the use of alkali is both unnecessary and harmful. If the patient is vomiting and also expelling fluids by rectum, fluid should be given both subcutaneously and intravenously. Physiologic sodium chloride solution seems best for this. It is a good general rule, in these cases, to make the liquid intake equal 1 liter every six hours.

Anhydremic acidosis in infancy and childhood may usually be controlled by the oral administration of water and by the rectal injection of a glucose or sodium chloride solution. If this fails, water, sodium chloride and glucose may be used intravenously.

Acidosis is encountered in many other diseases. If marked, it usually requires treatment, and sodium bicarbonate is usually effective in controlling it.

Production of Dehydration.—In neurologic surgery, increased intracranial pressure is combated at times by the use of hypertonic solution. If slow pulse, low blood pressure and stertorous breathing develop after operation, 1 ounce (30 cc.) of magnesium sulphate (saturated solution) is given daily by mouth unless coma, vomiting or other features preclude this, in which case 2 ounces (60 cc.) is given by rectum. If neither of these methods can be used successfully in controlling increased intracranial pressure, from 100 to 150 cc. of a 15 per cent hypertonic sodium chloride solution is given intravenously. Hypertonic glucose solution may be substituted if desired. Occasionally this procedure is indicated before operation.

III. INTRAVENOUS INSULIN THERAPY

The ideal mode of administration of insulin in diabetes would be a method which would imitate, as far as possible, the physiologic liberation of this hormone from the pancreatic gland. It must be admitted that information regarding this point is still fragmentary. We know that the blood sugar during fasting in man and animals remains constant, a fact which indicates that carbohydrate metabolism is adjusted to a definite and constant rate. It is reasonable to assume that under these circumstances the liberation of insulin is also maintained at a constant rate. If the individual takes a meal the blood sugar begins to rise, but it returns to the previous level within a few hours. It has been shown[2] that this alimentary hyperglycemia can be suppressed by a suitable dose of insulin. It may be inferred, therefore, that the alimentary hyperglycemia is due to a temporarily inadequate mobilization of insulin from the pancreas. Yet this alimentary hyperglycemia is of short duration and is evidently not incompatible with perfect health. The situation is quite different in the diabetic organism. Here there is a persistent decrease in the rate of utilization of carbohydrate, as indicated by a persistent hyperglycemia, regardless of whether food is being consumed or whether the individual is fasting. Insulin therapy should aim to restore the blood sugar fluctuations to normal. For many reasons, the solution of this problem is intimately related to the mode of administration of the drug; in fact, this question loomed up soon after the discovery of insulin. The Toronto school attacked the problem immediately in a comprehensive manner. It was soon found that the blood sugar, after the subcutaneous or intravenous injection of a nonfatal dose of insulin, reaches a minimum within from one to three hours, and this is followed by fairly rapid return of the blood sugar to normal. Unfortunately, it is impossible to prolong the duration of the insulin action by increasing the dose without serious risk to the patient, for it has been shown conclusively that a severe hypoglycemia is accompanied by serious symptoms. As single daily doses in severe cases do not seem to suffice, it is necessary to resort to more frequent injections. It is quite obvious that such frequent injections by the intravenous route would tax beyond reason the patient as well as the physician and an intravenous injection is properly regarded as a minor surgical operation, requiring a good deal of skill.

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[2] Banting, F. G.; Best, C. H.; Collip, J. B.; Macleod, J. J. R., and Noble, E. C.: Am. J. Physiol. 62: 559 (Nov.) 1922.

Experience during the last few years has shown that the intravenous administration of insulin should be restricted solely to emergency cases, when the condition of the patient is so grave as to require the most immediate results. Even in severe cases of diabetic coma it is rarely necessary to resort to intravenous insulin therapy. If it seems essential to administer insulin intravenously the usual precautions for this procedure should be observed; i. e., avoidance of infiltration of the perivascular tissues and a relatively slow rate of injection.

Apart from emergency cases, the use of insulin by intravenous injection is not justified. Even ignoring the great technical difficulties of very frequent intravenous injections, it is rather questionable whether this method is theoretically the best for the treatment of the ordinary case of diabetes. In fact, it was shown[3] that in animals the pharmacologic potency of insulin injected intravenously is considerably smaller than that of the same dose given subcutaneously. It is quite possible that the lower effectiveness of intravenous injections is due to a greater rate of elimination of the drug by the kidney; but this has not been proved. Recent work[4] has shown that insulin can be recovered from the urine of normal dogs in amounts varying with the rate at which it enters the blood stream. In the case of intravenous injection, the urine contains nearly the entire amount of insulin administered.

Although a great many attempts have been made to discover a more convenient mode of administration, the subcutaneous injection is still the most economical method that insures constancy of therapeutic action. Repeated subcutaneous injections are sometimes followed by local irritation of the tissues at the point of injection. The administration of insulin by mouth is accompanied by a destruction of the major part of the drug by the digestive enzymes. The addition of alcohol in this case does not materially increase the effectiveness. Rectal injections are inconvenient and produce great variations in therapeutic effect. The same applies to vaginal and intratracheal injections. Insulin is absorbed to a slight extent by the intact skin, but the results obtained by inunction are not satisfactory. The perlingual administration has recently been reported to give some promising results, but here also the absorption is too uncertain.

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[3] Voegtlin, Carl; Dunn, E. R., and Thompson, J. W.: Pub. Health Rep. **39**: *1935 (Aug. 8) 1924.*

[4] Fisher, N. F., and Noble, B. E.: Am. J. Physiol. **67**: 72 (Dec.) 1923. Best, C. H., and Scott, O. A.: Insulin in Tissues Other Than Pancreas, J. A. M. A. **81**: 382 (Aug. 4) 1923.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION. W. A. PUCKNER, SECRETARY.

NEONAL. — *N*-Butylethylbarbituric acid.—*N*-Butylethylmalonylurea.—2,4,6, trioxy-5-*N*-Butylethylpyrimidin.$N\text{-}C_4H_9(C_2H_5)\underbrace{CNHCO.CO.NHCO}$.—Neonal differs from barbital (diethylbarbituric acid) in that one of the ethyl groups of the *former is replaced by a normal butyl group.*

Actions and Uses.—The actions and uses of neonal are essentially similar to those of barbital, but it is about three times as active as the latter; hence it is used in correspondingly smaller doses. It is claimed that it exerts a sedative action to an exceptional degree, and that it is useful therefore in high nervous tension, neuroses and other conditions in which a sedative is required. It has the property in common with other barbituric acid derivatives of augmenting the action of analgesics such as amidopyrin, acetphenetidin and acetylsalicylic acid.

Dosage.—From 0.05 to 0.4 Gm. (¾ to 6 grains). For mild insomnias 0.05 to 0.1 Gm. (¾ to 1½ grains) is stated ordinarily to produce sleep. A dose of 0.4 Gm. (6 grains) is the maximum dose which should be required in the course of twenty-four hours, administered in divided doses.

Manufactured by the Abbott Laboratories, North Chicago, Ill., under U. S. patent 1,609,520 (Dec. 7, 1926; expires, 1943) by license of Les Etablissements Poulenc Freres. U. S. trademark 175,580.

Neonal Tablets, 0.1 Gm.

Neonal occurs as a white, crystalline, odorless powder, with a slightly bitter taste; readily soluble in alcohol, about 1 in 5, and ether about 1 in 10; very slightly soluble in cold water; insoluble in the paraffin hydrocarbons. A saturated aqueous solution is acid to *litmus* paper. It melts at 124-127 C. It is stable in air.

Place 0.3 Gm. in a 25 cc. glass stoppered cylinder, add a mixture of 1 cc. normal sodium hydroxide solution and 5 cc. of water, shake the contents for one minute, filter through paper and divide into two portions; to one portion add 1 cc. of mercuric chloride solution: a white precipitate results, soluble in 10 cc. of ammonia water; to the other portion add 5 cc. of silver nitrate solution: a white precipitate results, soluble in 5 cc. of ammonia water. Boil 0.5 Gm. with 5 cc. of a 25 per cent sodium hydroxide solution: it is decomposed with the evolution of ammonia.

Dissolve 0.1 Gm. in 1 cc. of sulphuric acid: the solution is colorless (*readily carbonizable substances*). Boil 0.5 Gm. with 50 cc. water for two minutes: no odor develops; cool and filter; separate portions of 10 cc. each of the filtrate yield no opalescence with 1 cc. of diluted nitric acid and 1 cc. of silver nitrate solution (*chloride*); no turbidity with 1 cc. of diluted nitric acid and 1 cc. of barium nitrate solution (*sulphate*); no coloration or precipitation on saturation with hydrogen sulphide (*salts of heavy metals*).

Incinerate about 1 Gm. accurately weighed: the residue does not exceed 0.1 per cent.

Dissolve about 0.5 Gm., accurately weighed, in 25 cc. of previously neutralized alcohol, dilute with an equal volume of water and titrate with tenth-normal sodium hydroxide solution, using thymolphthalein as an indicator: the amount of tenth-normal sodium hydroxide solution consumed corresponds to not less than 98.5 per cent nor more than 101.5 per cent of *N*-Butyl ethyl barbituric acid.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JUNE 4, 1927

NATURE OF THE NERVE IMPULSE

Less than three centuries ago, John Mayow[1] wrote: There can be no doubt that the influx of animal spirits is necessary for the performance of the motive function, inasmuch as if a nerve is cut or obstructed, the muscle to which it is distributed refuses to contract. It is not to be supposed, however, he added, that the contraction of the muscles depends on the animal spirits alone, since for carrying it out there is absolute need of other particles besides, brought from the mass of the blood. Even here there is at least a slight implication of the involvement of blood constituents, in other words of chemical substances, in the functioning of muscle. Since Mayow's day the energetics and chemistry of the contractile act have been placed on a much firmer foundation; but the comparable problems of the nature of the nerve impulse have not been equally fortunate in their solution.

It is true, of course, that we no longer call on "animal spirits" or similar vague entities to explain the happenings in a functioning nerve. The relatively slow velocity with which a nervous impulse travels has made it necessary to discard all the hypotheses that associated it with electricity or something analogous to "luminous ether." For many years efforts were made to show that, in the physiologic performance of a nerve, changes are initiated analogous to those long demonstrated for muscle, the other active tissue of the body. In the work of the muscle heat is produced, carbon dioxide forms, and an acid reaction develops. The genesis of such chemical changes may be attended with evidences of fatigue. The efforts to show such reactions in the stimulated nerve were only partially, if at all, successful.[2]

As a recent writer has pointed out, the most obvious hypothesis that the wave transmitted by nerve is of a physical character, analogous to that of other physical waves, was supported by the fact that it had always been found impossible, even with the most refined methods, to detect any heat liberation in a nerve as the result of stimulation. In a noteworthy address outlining his own researches before the National Academy of Sciences at its recent Washington meeting, A. V. Hill[3] of the University of London, whose contributions to the physiology of muscle have already won him a Nobel prize, related how recent improvements in experimental methods have made it possible at last to measure the heat produced by nerve during stimulation, thus disposing finally of the purely physical hypothesis of the nervous impulse, especially since it has been found that, as in muscle, the heat can be divided up into several phases, of which the most important is that of "recovery" following activity. The observations on the heat are in agreement with those of other observers who have reported an increase in the oxygen consumption, or the carbon dioxide output of nerve, following stimulation. The work represents the triumph of brilliant technic. Its difficulties may be better realized by a statement of some of the actual results. With the extremely delicate thermopiles and galvanometers constructed for Hill's studies it was found (ten seconds of stimulation being employed) that a single nerve impulse causes an initial rise of temperature of about 0.0000001 degree C., which is followed by a prolonged recovery phase in which about nine times as much heat is given out as in the initial phase. The heat per impulse is not constant but diminishes considerably as the frequency of stimulation is increased. This shows that, after a wave of activity has passed along, the energy available for immediate use in a subsequent impulse has to be restored. This represents an analogy with muscle. The function of nerve has thus been removed from the category of vague and mysterious vital performances.

TYPHOID EPIDEMIC IN MONTREAL

The occurrence of thousands of cases of typhoid in Montreal since March is reason for astonishment. According to information assembled from official reports, from January 1 to March 3, 1927, nineteen cases of typhoid occurred in Montreal. This was not regarded as an excessive rate for the city. March 4, one case of typhoid was reported; March 5, three cases; March 7, eleven cases; March 8, twenty-six cases; March 9, forty-three cases, and March 10, forty-four cases. The present epidemic is, therefore, said by Canadian health authorities to date from March 4. By March 12 there had been 207 cases of typhoid reported in Montreal. During the week ended March 21 this number had risen to 497, and for the week ended March 28 had increased to 609. Articles appearing in Montreal newspapers about this time stated that adequate provision was being made for the hospitalization of patients; that persons were being advised to take antityphoid inoculations, and that apparently the epidemic was milk-borne. Newspapers said also that some persons thought the epidemic was due to infected water, but that this could not be determined as Montreal had no city bacteriologist!

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[1] Mayow, John: Medico-Physical Works, a Translation of Tractatus Quinque Medico Physici, 1674, Alembic Club Reprints 17, University of Chicago Press, 1908.

[2] Metabolism of Nerve Fiber, Current Comment, J. A. M. A. **86**: 41 (Jan. 2) 1926.

[3] Hill, A. V.: The Measurement of the Heat Production of Nerve, Science **65**: 452 (May 6) 1927.

Meanwhile typhoid continued to increase in Montreal, 618 cases occurring for the week ended April 4. A considerable drop ensued, with 320 cases for the week ended April 11, and 127 cases during the week ended April 18. Apparently, authorities in Montreal were reassured and an official report, April 21, said that the epidemic was under control, and that official measures (?) had been adopted to prevent a new outbreak. In this report it was stated that a typhoid carrier had been discovered among the employees of a firm which conducts a milk and cream trade in Montreal, and that the carrier was dismissed as soon as laboratory tests had established that he was a carrier. Mention was not made, however, of the disposition of this carrier.

During the week ended April 25, 140 cases were reported, and during the remaining five days of April, eighty-one cases. During the week ended May 7, ninety-three cases were reported, but during the following four days, May 7 to May 11, 140 cases, and on May 12, seventy-nine cases. On May 20, 108 cases were reported. For several days no reports were received, but on May 21, word was received from Montreal that between May 14 and May 20 there had been 676 new cases, which would indicate a considerably increased number of cases. From March 4 to May 20, 3,788 cases of typhoid were reported in Montreal with 291 deaths.

The public realization of the menace was reflected by the Montreal *Star,* May 19, in a front page article entitled "Dare the City Delay an Hour?" This article referred to an order that had been given to close two Montreal dairies, but stated that the plants were not yet closed and were still distributing milk. It said further that the health authorities of the province had issued a statement to the effect that there was at that time a recrudescence of the disease, and that the proportion of cases for which milk was responsible was increasing. Another paragraph in this article said: "No minor objection can possibly be permitted to weigh. It is a question of saving lives. Publicity will do something. But plants which have been branded in this open, official and blasting fashion by the first health authority of the province should not be allowed to deliver at the door-step of innocent people another pint of milk." On May 20 another first page article asked, "Have Montrealers Self-Government?" The article definitely sets forth why this typhoid epidemic continues to prevail in Montreal:

> A typhoid epidemic meant that hundreds and possibly thousands of people would be stricken with a dangerous and often deadly disease, that hundreds might die—and they did die—that the name of the city would be blackened all over the continent as the lurking ground of a "filth plague," that losses running to millions would be inflicted upon our people. . . .
>
> What was done?
>
> The head of the civic government met infuriated deputations with the statement that there was "no epidemic."
>
> Naturally, if there were "no epidemic," there was no reason for emergent action for mobilizing the whole resources of the city, to combat a normal state of affairs.
>
> Our civic health department did what they could.
>
> But the civic health department was starved by the Executive Committee. It should have been given at once an army of inspectors to see that pasteurization was carried on properly and effectively in every plant.
>
> But in spite of the emergency, in spite of the peril, in spite of the mounting cases, in spite of the hurried efforts to provide new hospital beds, not a single new pasteurization inspector was given to the overdriven health department.
>
> Can you imagine it? An invasion—and no mobilization. And the defending general declaring, cynically, that there was no invasion—"no epidemic."
>
> Who could possibly be surprised at a "recrudescence."
>
> The surprising thing would be if it had not occurred. The Executive Committee—who are the real government of this city—took no adequate steps to prevent it. . . .
>
> There may possibly be an element of misfortune in a city being caught off its guard once after a period of apparent immunity.
>
> But to be caught twice—and to be caught in the same plants which should have been watched in every crevice as a cat watches a mouse!
>
> There is no language to characterize such carelessness, such callousness, such flagrant and deadly neglect of duty.

The typhoid fever situation in Montreal was considered so important that the Surgeon General of the United States Public Health Service issued a circular letter to state health officers, dated April 30, 1927. Since this letter was issued, the number of cases has been changed from approximately twenty-five hundred to approximately four thousand. During the State and Territorial Health Officers' Conference with the United States Public Health Service, May 20 and 21, the following resolution was unanimously adopted and given to the Associated Press:

> *Resolved:* That this Conference, taking cognizance of the alarming epidemic of typhoid fever in Montreal which has continued so long as to indicate ineffective public health measures for its prevention; that organizations contemplating sessions in Montreal and tourists expecting to visit that city are advised that they should be inoculated against typhoid fever if, considering the danger involved, it is still absolutely necessary to include Montreal in their itineraries.

During the early course of the epidemic, the Department of Agriculture, acting on the advice of the Public Health Service, placed an embargo on the shipment of milk to the United States from any point in the area included within a radius of two hundred miles from Montreal. This embargo was modified early in May on representation from the Canadian health authorities and the Canadian Agricultural Department as to conditions throughout the provinces of Ontario and Quebec. At the present time milk properly certified by Canadian authorities is being accepted from Canada except such milk that has been transshipped, handled or treated in any manner in the city of Montreal.

The outbreak of typhoid seems to be definitely limited to Montreal and its immediate vicinity. The lessons of the situation are obvious to every sanitarian, indeed to every physician or intelligent citizen. The Montreal press pointed them out to its own community!

THE ALTITUDE RECORD—MAN'S CONQUEST OF THE AIR

Altitude has been described as a climatic condition that causes physiologic changes which affect our bodily comforts. Among its variables are lowered atmospheric pressure, altered partial pressure of oxygen, temperature and humidity, and increased intensity of sunshine and electrical conditions. While in the past the effects of altitude have been attributed to one or more of these variables, Schneider[1] asserts that the controlling element in the physiologic reactions is the *diminished partial pressure of oxygen and the consequent imperfect aeration of the arterial blood.* A limited degree of anoxemia may be offset by compensatory adjustments in the body. Thus there may be an acclimatization to moderate altitudes through increase in the number of erythrocytes and a consequent improved oxygen-carrying capacity of the blood. Ordinarily the beginnings of the blood and circulatory changes are delayed by at least as much as from six to twenty-four hours. Such changes characterize the ability of persons to live in mountainous regions and in the course of time to effect successfully the ascent of high mountain peaks. The experiences of members of the expeditions to Mount Everest in the Himalayas may be recalled in this connection. For many persons an altitude of 10,000 feet represents some hardship; at 15,000 feet respiratory difficulties are usually unmistakable, while an ascent to 20,000 feet without artificial aids represents a unique performance that few persons can boast of.

In addition to mountain climbing, ballooning was for many years the only circumstance in which the physiologic problems of altitude were brought into prominence. In recent years, however, the advent of the airplane with its marvelous performances has given new significance to the physiologic effects of altitude. According to Schneider, between 23,000 and 25,000 feet appears to be the upper altitude limit for consciousness for unacclimatized men.

In addition to the means of transport to the upper reaches of the atmosphere, man's conquest of the higher air has depended on devising means of securing oxygen from artificial supplies when the partial pressure at greatly reduced barometric conditions no longer suffices; likewise in overcoming the extreme cold of the far away spaces by means of electric heating devices and suitable insulation with clothing. Record ascents of seven miles in airplanes have already been referred to in these columns.[2] Today the balloon has gained the ascendency. The previous altitude of 35,433 feet made by a German aeronaut was excelled by Capt. Hawthorne C. Gray, May 4, when his balloon was reported in the press to have reached a height of 41,000 feet, nearly eight miles above the earth. Such results could be attained only through the due recognition of the physiologic limitations of the body and the initiation of means to supplement them. Intense cold and extreme deprivations of oxygen no longer stand in the way of human progress when it seems worth while.

A STRIKING INADEQUACY OF THE CIRCULATION

The writers of the Bridgewater Treatises of a century ago were primarily occupied with discovering evidences of design in nature. They endeavored to interpret all natural phenomena in the light of an adaptation of means to an end. Where this was not clearly evident it was inferred, sometimes by the most devious logic. The intervening years have witnessed varied attempts to demonstrate the perfection of physiologic mechanisms and their performances. A student of the human organism and its manifold functional arrangements cannot fail to become enthusiastic about the marvels of the body. A critical age, however, has not failed to point to numerous "imperfections" in the natural order and to emphasize structural parts that are by no means perfectly adapted to their purposes. It is no longer blasphemous to admit that man-made devices may exceed in perfection of plan and performance some of the bodily organs.

An illustration of certain shortcomings of the circulation of man in meeting daily needs has lately been presented by Turner.[1] Quiet standing for a considerable time is frequently accompanied by signs of circulatory embarrassment or distress even in healthy persons. It might be expected that the circulatory minute volume would rise when the standing position is assumed after a control period of reclining, since standing is more work and in general the circulatory minute volume has been found to run parallel to the needs of the body in exercise. The actual observations made at the Harvard School of Public Health by Turner on healthy young women in reclining, sitting and standing positions show that whereas the metabolism rose with the more difficult posture, the minute volumes of the heart output changed in the opposite direction. For example, the average values in liters for the three positions were, reclining, 6.26; sitting, 5.59; standing, 4.77. The heart rate was increased in sitting as compared with reclining and further increased on standing. The latter increase was greater than the increase of the metabolism. The output per beat was thus decreased on sitting as compared with reclining and much more decreased on standing.

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[1] Schneider, E. C.: Physiological Effects of Altitude, Physiol. Rev. **1**: 631 (Oct.) 1921.

[2] Circulatory Responses to Anoxemia at High Altitudes, Current Comment, J. A. M. A. **84**: 373 (Jan. 31) 1925. Respiratory Changes in Airplane Flights, ibid. **86**: 1985 (June 26) 1926.

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[1] Turner, Abby H.: The Circulatory Minute Volumes of Healthy Young Women in Reclining, Sitting and Standing Positions, Am. J. Physiol. **80**: 601 (May) 1927.

The lessened output from the heart on taking a quiet erect position harmonizes too well with the ordinary experiences of life, as Turner points out, to make it open to serious question, even though it is at variance with the needs of a rising metabolism. It is the quiet maintenance of the erect position that is the marked feature of the occasions on which this circulatory embarrassment appears in ordinary life. Frequent examples are the fainting of West Point cadets at inspection, the fainting of women whose clothes are being fitted, and the collapse of persons who stand for a considerable time to see parades or to listen to speeches in crowded auditoriums. In hot weather the dilatation of the cutaneous vessels may add another factor to prevent perfect return of blood to the heart and thus increase the handicap of the circulation.

In quiet standing the blood has little to aid its return to the heart. As Turner has shown, gravity is against the large amount below the heart, there is no rhythmic pumping of the locomotor muscles so often used in alternation, the exercise of standing increases the carbon dioxide in the blood too little to augment respiration largely and so facilitate thoracic aspiration; indeed, everything is against the filling of the heart. That more liquid actually tends to accumulate in the legs is indicated by the observation of Bock, who found that the legs increase in girth when standing is prolonged. The fundamentalists will find little solace from Turner's added hint that a lowered circulatory volume in the quiet erect position is not out of harmony with the evolutionary derivation of the erect from the horizontal animals. It is perhaps to be expected that the phylogenetically later position should show a less perfect adjustment, especially in view of its intrinsically greater difficulty from the physical standpoint of the movement of liquid in vessels.

Current Comment

DRY AIR AND VITAL CAPACITY

Medical climatology still remains for the most part in the stage of empiric observation. In the transfer of patients to selected regions, problems of change, rest and exercise are usually added to those that may be more strictly defined as climatic. The latter include questions of temperature, moisture and altitude, each of which involves special physiologic considerations. What are the criteria for selecting special climatic conditions in practice? They are admittedly dictated by experience and pragmatic circumstances far more often than by any convictions based on demonstrable scientific claims. Modern therapeutics needs more cogent indications for the allocation of patients to special resorts. An illustration of what is involved hereby has recently been presented by Leas[1] of the Lakeside Hospital, Cleveland. He points out that climates with a low relative humidity are believed to give relief to some patients with asthma. Inferentially this is due, at least in part, to the beneficial effect of dry air, which will extract more moisture from the bronchial tree than the air of a locality with a higher humidity. If this is true in respect to the bronchial moisture of asthma, he adds, it should also be true in respect to bronchial moisture from other sources, such as cardiac and renal. The possibilities have been tested by determining the comparative vital capacity of patients before and after breathing dried air. The latter was secured by passing room air through anhydrous calcium chloride before it was inspired through the usual inhalation devices of a gas metabolism apparatus. It was assumed that dry air may increase the vital capacity by extracting a larger part of the bronchial moisture. Evidently the result depends on the pulmonary conditions. Obstruction to respiration in the bronchi is not always due to free moisture. Leas' measurements indicate that breathing dry air extracts enough of the moisture to increase temporarily the vital capacity in the majority of patients with bronchiolar edema, decreases the lung volume and number of râles, and produces a sense of subjective relief. However, if the vital capacity is reduced because of bronchial obstruction other than moisture, interstitial pulmonary edema or a rigid lung due to stasis, breathing dry air does not cause any change. The procedure, he states, may also be used to differentiate between those patients with asthma whose bronchial obstruction is due chiefly to moisture and not to hypertonus or hives and thus will be selective of cases in which the patients will improve, in all probability, in a drier climate. It is wise to remember the dictum that there is no excuse for sending away an asthmatic patient who carries a removable cause of asthma with him.

ALCOHOL AND THE LIVER

The liver has long been regarded as particularly susceptible to pathologic alterations as the result of chronic alcoholism, or alcoholic inebriety, as it is also termed. The organ shows the changes of chronic congestion, of fatty infiltration, or of cirrhosis and contraction. It has often been argued, however, that some or all of these manifestations can be incited by a variety of pathogenic factors, so that caution may be called for in making specific charges against alcohol. Thus, Lambert[1] pointed out twenty years ago that animal experimentation had not yet proved that progressive cirrhosis of the liver is produced by alcohol, although clinically a well defined history of excessive alcoholic indulgence can be elicited from the great majority of patients suffering from cirrhosis. In the case of acute alcoholic poisoning the possible etiologic relationship between alcohol and liver disease has been even more problematic. Recently, however, Wallace[2] has conducted some decisive observations on patients admitted to Bellevue Hospital, New York, with the diagnosis of acute alcoholic intoxication. Two tests of liver function were employed—the indirect van den

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[1] Leas, R. D.: Vital Capacity: A Study of the Effect of Breathing Dry Air, Arch. Int. Med. **39**: 475 (April) 1927.

[1] Lambert, Alexander, in Osler's Modern Medicine **1**: 171, 1907.

[2] Wallace, R. P.: Liver Injury in Acute Alcoholic Poisoning, Proc. Soc. Exper. Biol. & Med. **24**: 598 (March) 1927.

Bergh quantitative test for bilirubin and the quantitative determination of urobiligen in the urine. The blood and urine specimens were obtained at arbitrary intervals over a period of several days. Wallace's records give definite evidence of liver injury, and this is proportionate to the severity of the poisoning.

THE FORMATION OF THROMBI

An ingenious procedure for the experimental study of thrombosis has recently been devised at the Mayo Clinic by Shionoya, Johnson and Rowntree.[1] It consists of an arterial and a venous cannula connected peripherally by a transparent, semipermeable collodion tube, the whole forming a U-shaped system. The cannulas are inserted into the carotid artery and jugular vein of an animal after the apparatus is filled with physiologic sodium chloride solution, and the membrane portion rests in such a solution. When circulation is established the blood flows through the system and back to the animal without contact with air. The process of thrombosis can be followed with the unaided eye; the membrane may be detached at any time and studied with all the refinements of microscopic technic. It is even possible to observe the genesis of thrombi directly by means of the microscope with proper illumination of the collodion membrane. The formations observed in this "extracorporeal circulation" are composed first of platelets; they grow concentrically by the deposition of additional platelets and leukocytes, and finally fibrin appears. This sequence of events is in harmony with the classic descriptions of Welch and others. The method gives promise of adding information regarding the origin and perhaps the control of blood changes that sometimes bring a heavy toll of harm to the organism. The menace of postoperative pulmonary embolism is only one of the significant illustrations of this.

COURT OUSTS MISSOURI DIPLOMA MILL

The St. Louis College of Physicians and Surgeons has come to an end, the supreme court of Missouri having declared its charter, articles of corporation and franchise forfeited. Since its reestablishment in 1916, this school has been conspicuous in medical diploma mill operations. The Connecticut special grand jury in 1924 investigated its ramifications. A special commissioner was appointed in Missouri to conduct an investigation in 1925, and the evidence collected indicated that the dean of the school, Dr. Waldo Briggs, had agreed to give Dr. Robert Adcox a considerable part of the tuition fees of students which the latter procured. The evidence disclosed that students procured by Adcox received certificates of graduation and diplomas without having attended the school the required length of time, and that Briggs accepted from Adcox certificates of credits although he knew they were fraudulent. The supreme court of Missouri has within the last year ordered the charters of two of its most notorious diploma mills revoked. When the charter of the Kansas City College of Medicine and Surgery was revoked, Judge White said, "We can imagine no more serious injury to the public than the issuance of degrees to practice medicine to persons wholly unqualified to treat the sick." In revoking the charter of the St. Louis College of Physicians and Surgeons, Judge Atwood said that such conduct constitutes such a wilful abuse of powers and franchises as to justify their forfeiture. The men behind these schools seem determined to conduct institutions in the face of these rebukes. Those connected with the Kansas City College of Medicine and Surgery promptly chartered another nominally eclectic affair and began business on the old site. The St. Louis College of Physicians and Surgeons obtained a new charter before the supreme court had rendered its decision. It appears, therefore, that Missouri's fight to keep its name free from further stain by unqualified physicians is not over.

ORIGIN OF THE ANTIRACHITIC SUBSTANCE, VITAMIN D

There is little doubt at present that various vitamins can be stored in the body. As a consequence the reserves of these nutritional essentials may vary at different times, depending on the quality and quantity of the intake. With respect to vitamins A, B and C it is commonly assumed on the basis of available experimental evidence that they cannot be synthesized by the animal organism, which consequently depends on exogenous sources for the necessary supplies. The antirachitic substance—vitamin D—has been less extensively studied as yet, so that its origin and fate are not so clearly indicated. Vitamin D occurs in some fish oils—notably in cod liver oil—in egg yolk fat, and to a small extent in milk fat. As a rule the vegetable fats are not antirachitic. A few instances of undoubted potency in oils of plant origin have been ascribed to the effect of solar irradiation of the products incident to their commercial preparation. This is true of coconut oil prepared from sun-dried copra. Whereas plants furnish the other vitamins in considerable abundance, so that the latter are generally believed to originate principally in the vegetable kingdom, the same conclusion is not directly applicable to vitamin D. Bills[1] has essayed to learn the origin of the liberal supplies of this vitamin in the codfish. He ascertained that the principal food (caplin) of the Newfoundland codfish apparently does not contain enough vitamin D to account for the vitamin accumulated by the cod during its midsummer period of fattening. Piscicultural experiments demonstrated that the vitamin D of catfish oil was not increased by irradiating the fish; and it was not decreased by keeping the fish for six months in the dark on a vitamin-deficient diet. These observations raise the question as to whether vitamin D cannot actually be synthesized by certain species. Incidentally it is of practical interest to learn from Bills' tests that the oils of such common food fish as the herring and the sardine rival the cod in antirachitic potency.

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[1] Shionoya, T.; Johnson, W. R., and Rowntree, L. G.: Studies in Experimental Thrombosis, Proc. Soc. Exper. Biol. & Med. **24**: 655 (April) 1927.

[1] Bills, C. E.: Antiricketic Substances: VI. The Distribution of Vitamin D, with Some Notes on Its Possible Origin, J. Biol. Chem. **72**: 751 (April) 1927.

PROCEEDINGS OF THE WASHINGTON SESSION

MINUTES OF THE SEVENTY-EIGHTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT WASHINGTON, D. C., MAY 16-20, 1927

HOUSE OF DELEGATES

Third Meeting—Wednesday Morning, May 18

(Concluded from page 1733)

The House of Delegates was called to order at 9 o'clock by the Speaker, Dr. Fred C. Warnshuis.

The Speaker announced a quorum present, the registration slips constituting the roll.

The Speaker asked for a motion that at the meeting of the House on Thursday afternoon the amendment to article V, section 1 of the Constitution (based on the report of the Judicial Council) be reconsidered, since according to the wording of the Constitution and interpretation in Roberts' Rules of Order, a three-fourths vote of all delegates registered during the continuous session of the House is necessary for adoption. The motion was made by Dr. C. S. Gorsline, Michigan, seconded by Dr. A. T. McCormack, Kentucky. Since Dr. Gorsline voted against the prevailing motion, it was required that the motion be made by a delegate voting for the prevailing motion. Dr. E. C. Thrash, Georgia, moved reconsideration, seconded by Dr. A. T. McCormack, Kentucky, and carried.

Supplementary Report of Reference Committee on Hygiene and Public Health

Dr. H. M. Brown, Wisconsin, Chairman, read a supplementary report:

RELATIONS BETWEEN MEDICAL MEN AND HEALTH OFFICERS

1. The question involved is: Is it or is it not one of the essentials of ethical practice of medicine that the practitioner of medicine become, in his local area, a quasi, unpaid assistant to the department of health?

That question has never been definitely answered.

Whatever may be the opinion of either party, the department of health or the local practitioner, the situation is to be faced and settled on a broad basis of mutual understanding, not by useless resistance of either party to the controversy.

Health boards and health officers are established facts. The physician has his established position in society. Whether he will or not, he must accept the existing conditions; he cannot nor should be attempt to stop the progress of civilization; rather should he become an aide to the administration of the functions of the health officer, and by so doing enhance his value to his patients and his public; for in the end he will find that resistance is only a damage to his public and also to his reputation and usefulness; for the health officer cannot perform his function without the physician, nor in the end can the physician alone or the entire medical body stop the progress of the effort for better hygienic surroundings and better health, nor if he were successful in such an effort would he accomplish anything but destruction of his own reputation and his usefulness in his place of residence.

If there were no other reasons than those set down in the article under consideration, it is a condition and not a theory that confronts the physician, and he would not improve his personal position in his local environment by unreasonable resistance, while he will improve his position only in collaboration in the administration of the local health officer.

There is no other course to be taken than that of collaboration, and in that method of meeting the situation he will find his only path to safety and material betterment, nor can the medical group of any locality expect to benefit in a material way.

COMMITTEE ON TRACHOMA AMONG INDIANS

2. Your committee recommends a continuation of the affiliation of the American Medical Association in the activities in the United States government in the work being done by the National Committee for the Prevention of Blindness and the activities of the United States authorities for the elimination of trachoma, and recommends the continuation of the present relationship existing between those agencies and the American Medical Association.

Respectfully submitted.

H. M. Brown, Chairman.

Dr. Brown moved the adoption of the first section of the report; seconded by Dr. A. T. McCormack, Kentucky, and carried.

Dr. Brown moved the adoption of the second section of the report, which was seconded by Dr. A. J. Bedell, New York, and carried.

On motion of Dr. Brown, seconded by Dr. C. F. Moll, Michigan, the report of the committee as a whole was adopted.

Reference Committee on Rules and Order of Business

A vacancy created in the Reference Committee on Rules and Order of Business by the absence of Dr. H. P. Linsz, West Virginia, who was called home, was filled by the appointment of Dr. Bert L. Eiker, Iowa, Dr. F. A. Carmichael, Kansas, becoming chairman of the committee.

Supplementary Report of Reference Committee on Miscellaneous Business

Dr. Albert Soiland, California, read the report of the Reference Committee on Miscellaneous Business:

Your reference committee recognizes the meritorious features of the resolution on the Physicians' Home introduced by Dr. Kevin and feels that its importance warrants a full and careful consideration by this body. To that end your committee recommends that this resolution be referred to the Board of Trustees for a report at the next annual session.

By the Committee,
Albert Soiland, Chairman.

Dr. Soiland moved the adoption of the report; seconded by Dr. W. H. Mayer, Pennsylvania, and carried.

Supplementary Report of Special Committee on Nurses' Training and Education

Dr. Irvin Abell, Kentucky, read a supplementary report of the Committee on Nurses' Training and Education:

Your reference committee has considered the letter from the chairman of the Committee to Study Need of Midwifery for Nurses of the National League of Nursing Education, and recommends that assurance be given the League of the interest of the American Medical Association in the solution of the problem mentioned. In order to facilitate the correlation of the work suggested, we further recommend the appointment of one or both of the present representatives of the American Medical Association on the Committee for the Grading of Nursing Schools, Drs. William Darrach and N. B. Van Etten, to cooperate with the National League of Nursing Education's Committee to Study Need of Midwifery for Nurses.

Arthur J. Bedell.
Walter F. Donaldson.
Louis J. Hirschman.
E. P. Sloan.
Irvin Abell, Chairman.

Dr. Abell moved the adoption of the report; seconded by Dr. A. J. Bedell, New York, and carried.

Supplementary Report of Reference Committee on Legislation and Public Relations

Dr E J Goodwin, Missouri, read a supplementary report of the Reference Committee on Legislation and Public Relations

1 The reference committee recommends that the House of Delegates reaffirm its approval in principle of the Parker bill approved at the Dallas session, coordinating all public health activities of the federal government under the direction of the United States Public Health Service We also recommend the approval of the Ransdell bill, which is identical with the Parker bill excepting that the Ransdell bill appropriates $10,000,000 to establish and operate a national institute of health under the control of the Surgeon General of the Public Health Service

2 The reference committee approves the resolution offered by Dr T E Carmody, which reaffirms the favorable action of the House of Delegates at the St Louis session in 1922, requesting the passage of the Bursum bill in the House of Representatives, relating to the retirement of disabled emergency army medical officers on a parity with all other classes of disabled officers of the World War now on the retired list We recommend that the resolution be adopted and that the President of the United States, the Vice President of the United States and the Speaker of the House of Representatives be informed of this action

B R Shurly
A T McCormack
A D Dunn
E J Goodwin, Chairman

The first and second sections of the report were each adopted on motion of Dr Goodwin, seconded by Dr A T McCormack, Kentucky

The report as a whole was adopted on motion of Dr Goodwin, seconded by Dr. A T McCormack, Kentucky

Supplementary Report of Reference Committee on Hygiene and Public Health

Dr H M Brown, Wisconsin, read a resolution introduced by Dr C S Gorsline, Michigan, referring to preparation by the Board of Trustees of sets of model letters for use by county and state societies in encouraging public health examinations Dr Brown moved its adoption, seconded by Dr J D Brook, Michigan, and discussed by the Secretary and by Drs D S Dougherty, New York, Wendell C Phillips, New York, M L Harris, Judicial Council, C S Gorsline, Michigan, A T McCormack, Kentucky, Holman Taylor, Texas, C W Richardson, Board of Trustees, J A Pettit, Board of Trustees, and J W Van Derslice, Illinois The motion was lost by a vote of 39 to 69 Dr A E Bulson, Jr, Indiana, suggested to the committee that as the House apparently desired some such action, a resolution be introduced under the head of new business providing for this matter

Address by Dr. de Schweinitz

Past President G E de Schweinitz of Philadelphia was presented and addressed the House as follows

I couldn't, of course, resist the temptation of coming here to pay my respects to the House of Delegates Time slips on rapidly and shakes our restless glass most relentlessly, but it never can quite make it possible for any one who has enjoyed the privileges that your hand gave me once to forget that it is a duty and a pleasure to come here and speak to you members of the House of Delegates

I am sorry that I could not be present at the opening session I have read with much interest President Jackson's address as reported in the paper this morning I refer to President Jabez North Jackson, not to Andrew Jackson, although in the vigor of the enunciations they seem to be very much alike

I am very much interested in this speech with reference to the foundation of hospitals that shall be at the disposal of those whose lives have not always fallen in pleasant places I just want to say right here (I have often spoken to the Speaker of the House and to Dr West about this matter), even if you can't endow hospitals for that purpose, much as it is needed, those who have what we used to call the good habit of giving can perhaps do what one hospital can do with which I am connected where a r c[illegible] patient of mine gave me a very large sum of money, the income of which is used for exactly the purposes to which Dr Jackson referred in his excellent address I think those of us who have the chance to put that thought to those who have the means to give and willingness to give should do so because it answers the purpose for which Dr Jackson pleads, not so widely and not so definitely, but none the less very sucessfully I know of no charity over which I have had the honor to preside that has done so much good as the income of that very large sum of money, not for those who are very poor because they can get it, nor for those who are very rich who can buy it, but for those who are most estimable and who can neither buy nor get what they need

I was also interested to read what my vigorous friend from Fort Wayne says in regard to publicity I quite agree with him that it is dangerous to have some kinds of publicity Gentlemen, the time has come in modern medicine when there must be some kind of a properly regulated publicity, as indeed The Journal undertakes to do it I think it would be most admirable if some of the great societies could come together and form some kind of a bureau of information Of course the newspapers have a certain right to know certain things and the public has a certain right The trouble is that they are handed out by the wrong people and handed out with the wrong kind of emphasis That is really a very serious matter and ought to be attended to

After all, from the earliest times the medical profession has founded itself on the fundamental principle of regard for others We cannot have a regard for others unless we also regard the needs of the community in which we work The community can be better handled than now, too often straying down paths on which they had better not stray, if we of the medical profession can have some dignified, proper method of handing out to them what they need As Charles Mayo said some time ago, one handing out of that kind is worth hundreds of scientific papers written I quite agree with Dr Bulson in his criticisms, but I feel that we must do something of that kind more satisfactorily than we have at the present time

I thank the gentleman who has yielded and given me permission to say these few words I thank you again for the privilege of being here and for the great honor which once was mine of presiding over this great body (Applause)

Reference Committee on Reports of Board of Trustees and Secretary

Dr A W Booth, chairman, read the report of the Reference Committee on the Reports of the Board of Trustees and the Secretary

1 Your committee has carefully read the annual report of the Secretary and notes a gratifying and healthy growth of the membership and fellowship, there being over 2,000 added in each group

We especially desire to emphasize the Secretary's remarks regarding the county societies, as follows

> It is desirable that the constituent associations shall be strong and progressive organizations In developing their strength and in promoting their ends as state organizations it must never be forgotten that the county society is the basic unit and therefore the essential factor in the present scheme of organization As long as this scheme is adhered to it is important that the county society be made and kept as strong as possible If all the strength is built into the superstructure, the edifice will fall

Your reference committee is much pleased with the activities of the Woman's Auxiliary and believes that the auxiliary can do much to increase the effectiveness of the county society

Your committee favors strongly the establishment of district societies for the purpose of scientific discussions but would suggest that every effort be directed to continue an active society in each county where practicable for purposes of organization and the discussion of medical economics

Your committee desires to call attention to the fact that only eleven state associations and 120 county societies have so far adopted the plan for providing medical relief in time of disaster This plan of preparedness, in our opinion should be stimulated in every way possible, and the work carried forward under the existing county and state medical organizations

2 The splendid report of the Board of Trustees is strongly commended by your committee Lack of time will prevent the proper review of their efforts, which deserve the highest praise Only a few points can be touched on

> THE JOURNAL has pursued the policies of previous years in discussing the progress of medicine as rapidly as possible consistent with scientific conservatism Continuous improvement is being made in the form of presentation of material notably in illustration of news and in the arrangement of articles within the pages An innovation has been the prompt announcement of new books in the medical field, with brief critical notes
>
> The publication of the section papers within six months after the annual session at which they were read continues to be a difficult problem

The subscriptions to THE JOURNAL show an increase of 3 730 during the year There was an average circulation of 89 742 Receipts from advertisements were $798,059

The committee was much interested in the report on *Hygeia* which is gradually increasing in circulation and usefulness Our members should be vigorously reminded that for three years before the appearance of this splendid journal there was an urgent demand from them for such a publication Strange to say, the subscriptions among doctors is still small

It is the duty of every member of the Association to subscribe and it would actually pay him to do so Here again the Woman's Auxiliary is doing fine work with its general and local committees aiding in the circulation of *Hygeia*, especially in placing it in all public schools and libraries

We should feel particularly proud of the circulation of the *Cumulative Quarterly Index Medicus* which is practically the only complete index medicus now published and is used extensively both by our physicians and by those in other countries

The contact between this organization and the National Congress of Parent Teachers Association is yielding splendid results and is bringing about a movement for the systematic examination of children by the family physician There is need for the necessary blanks for these examinations In the health examination of adults material progress has been made, the Association sending out about 1 500 blanks a week

It is gratifying to note that the John Hancock Insurance Company has ceased its connection with commercial organizations doing work of this kind, and is referring such examinations to the family physicians It is to be hoped that other insurance companies will shortly follow this good example

Your committee would urge that continued efforts be made to persuade our members to sever all connections with the commercial organizations both in an advisory capacity and as examiners Such an act would result in much good to the profession and the public At the same time, the state and county societies ought to make increasing efforts to educate the public as to periodic examinations to be made by their regular physicians

Your committee would strongly commend the effective efforts of the Bureau of Legal Medicine and Legislation in reducing the narcotic tax, would commend its efforts regarding the Sheppard-Towner Act, and would urge that these efforts be continued

Your committee was much interested in the report of the Council on Physical Therapy and believes that much good will come from its investigations and recommendations The neglect of the use of physical therapy by the profession has, in our opinion, been of great aid to the irregulars

3 Your reference committee has seriously considered the report of the Committee to Cooperate with the Commissioner of Internal Revenue and the Secretary of the Treasury We desire particularly to emphasize that part of the report which says

> Your committee, however, feels that the Board of Trustees should recommend to the House of Delegates that, in the future, no resolution pertaining to the therapeutic value of anything should originate on the floor of the House of Delegates and that no committee report empowering any such resolution should hereafter be presented until it has been considered by the Council on Scientific Assembly, which may enlist the Council on Pharmacy and Chemistry in its deliberation

We therefore offer the following resolution

> That hereafter the House of Delegates shall not pass any resolution pertaining to the therapeutic value of anything and that no committee report empowering any such resolution shall hereafter be presented until it has been considered by the Council on Scientific Assembly and the Council on Pharmacy and Chemistry

In further consideration of the report, we have ascertained that since its publication the Supreme Court of the United States has denied the application for a reargument of the recently decided case of *Lambert v Yellowley et al* We heartily commend the suggestion of the committee that an attempt be made to draft a bill which shall include an amendment to the Volstead Act to remove the pint in ten days limit, provide regulations for license to prescribe, and have reasonable limitations Later in our report there will be afforded an opportunity to act on this phase

In view of the splendid work of this special committee and the cordial relation it has established with governmental agencies, we respectfully suggest that the committee be continued

4 The following resolutions, introduced by Dr T C Chalmers, New York, from the Medical Society of the State of New York, were referred to this committee

> *Resolved* That the House of Delegates of the Medical Society of the State of New York at its annual meeting at Niagara Falls on May 9, 1927, and representing as it does, more than ten thousand duly licensed physicians of this state,' mindful, as it is, of the solemn duty of the doctor to render to his patient whatever treatment the true teachings of science declare to be necessary or beneficial in caring for the sick, and resenting with stern disapproval any arbitrary and unscientific curtailment of this obligation realizing full well that to prevent the physician by arbitrary regulation from using for his patients' benefit whatever therapeutic agent his scientific knowledge and his conscience dictate, emphasizing its disassociation with any political issue, commonly referred to as wet' or "dry' in unmeasured terms condemns this unjust, unwise, unsound arbitrary and unscientific curtailment of and reflection on the medical profession as a whole and therefore, not in its own behalf but in that of the lay public, whom it seeks to serve, earnestly petitions for the immediate repeal of this section of the Volstead Law, and, be it further
>
> *Resolved* That the delegates from New York State to the House of Delegates of the American Medical Association be instructed to present and by all proper means to advocate the adoption of a memorial to the Congress of the United States, demanding the immediate repeal of that section of the Volstead Law and to employ all legitimate and honorable means for the education of the American public on this vital question

The condition of hysteria into which the country was thrown by the struggle over the prohibition amendment has apparently subsided and the time has come when the American Medical Association should state plainly its attitude with regard to the use of alcohol and alcoholic liquors as therapeutic agents, as well as the position in which the physicians of the country are placed by the present unfortunate state of affairs Such a statement should have no political bearing whatsoever and is intended to deal with the matter only from the practical and scientific medical standpoint Alcohol is often very helpful in the treatment of disease and is being used in the practice of a very large number of doctors, many of whom believe it to be an essential and life-saving remedy These doctors are confronted by a most deplorable situation brought about by the framers of the Volstead Act who unintentionally, we believe, limited the amount of alcohol for one patient to a pint in ten days Such physicians believe that in certain cases of serious illness a pint in ten days would be useless, and that law-abiding physicians have no other alternative than to violate the law in order to save life This is wrong and should be corrected We believe it will be promptly corrected if the situation is properly presented to the authorities in charge

Your committee would therefore recommend that with the cooperation of the special committee headed by Dr Mayer of Pennsylvania and the excellent executive of the Bureau of Legal Medicine and Legislation, Dr Woodward, the Board of Trustees be directed to prepare a bill to be presented to Congress correcting the unfortunate provision of the Volstead Act limiting the amount of alcohol used, and providing such regulations as will permit doctors to prescribe whatever amounts of alcoholic liquors may be needed for their respective patients, and subject to such reasonable restrictions as may be thought wise and best after a conference with the head of the Prohibition Department

5 As regards the purport of the resolution presented by the Medical Society of the State of New York in relation to medicinal alcohol, stripped of all verbiage, this resolution demands that the principle here promulgated takes the issue out of all wet or dry questions and insists that the physician be given by Congress the freedom from restriction to prescribe alcohol in disease as his scientific judgment dictates We therefore offer the following resolution

Resolved, That the American Medical Association declares its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine

6 The above resolution states succinctly the principles involved and the result desired therefrom The question therefore arises, How may this result be best brought about? It has been suggested through the following resolutions offered in the House of Delegates by Dr Chalmers that a referendum be taken regarding this opinion on therapeutic use of alcohol in disease and that the results of this referendum be offered to Congress

Resolved, That the trustees of the American Medical Association be requested to send to every registered physician practicing in the United States a ballot requesting him to vote on the following question

"Are alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia, useful therapeutic agents in the treatment of disease?"

And be it further

Resolved, That the trustees of the American Medical Association be requested to submit the returns of this questionnaire in a memorial to Congress, asking that the restrictions on the quantity of alcohol and alcoholic liquors that may be prescribed for the sick be removed

With reference to the resolutions of Dr Chalmers of New York suggesting a referendum, your committee would recommend that this matter be referred to the Board of Trustees with power to act In the event that a referendum is considered advisable, your committee would suggest the following questions

(*a*) Do you believe that legislative bodies should enact laws regulating or limiting the prescribing of therapeutic agents by legally qualified physicians?

(*b*) Do you believe that alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia are useful therapeutic agents in the treatment of disease?

Respectfully submitted

J N Hunsberger
Southgate Leigh
H G Stetson
Charles J Whalen
Arthur W Booth, Chairman

On motion by Dr Booth, seconded by Dr A E Bulson, Jr, Indiana, sections 1 and 2 of the report were adopted

Dr Booth announced that under the action taken by the House the remainder of the committee's report should be considered in executive session On motion of Dr A E Bulson, Indiana, seconded by Dr Isaac A Abt, Section on Diseases of Children, and carried, the House went into executive session

EXECUTIVE SESSION

Dr Booth moved the adoption of section 3 of the report, seconded by Dr A T McCormack, Kentucky, and carried

Dr Booth moved adoption of section 4 of the report The motion was seconded by Dr T C Chalmers, New York, and carried

Dr Booth moved the adoption of section 5 of the report, seconded by Dr A E Bulson, Jr, Indiana After discussion by Drs Chalmers, McCormack and Leigh, the motion was carried

Dr Booth moved the adoption of section 6 of the committee's report, seconded by Dr A E Bulson, Jr, Indiana After discussion by Drs Chalmers, Mayer and McCormack, the motion to adopt was unanimously carried

On motion of Dr Booth, seconded by Dr N B Van Etten, New York, and carried, the report of the committee as a whole was adopted

Dr A E Bulson, Jr, Indiana, moved that all publicity pertaining to the action of the House on the liquor question be given out by the Publicity Department under the Editor of The Journal, and that no member of the House should submit himself to interview concerning the matter The motion was seconded by Dr E P Sloan, Illinois Discussed by Dr Southgate Leigh, Virginia, and Dr McLain Rogers, Oklahoma, who offered an amendment to the motion that the publicity given out be given in consultation with the Speaker of the House and the Reference Committee on Reports of the Board of Trustees and the Secretary The amendment was accepted by Dr Bulson, and the motion as amended was carried

Under the head of new business, Dr J D Brook, Michigan, presented a resolution relative to the therapeutic use of alcohol and alcoholic liquors and other therapeutic agents Referred to the Judicial Council

The executive session adjourned, and the House reconvened in general session

NEW BUSINESS

Amendment to the Constitution

Dr J C Litzenberg, Minnesota, proposed amendment of Article 12 of the Constitution so as to change the number of votes required to amend the Constitution, and amendment of Section 5, Chapter II, of the By Laws so as to change the number constituting a quorum of the House of Delegates.

Presentation of Dr T. C Routley

The Secretary, Dr West, presented Dr T C Routley of the Canadian Medical Association, who addressed the House briefly, conveying the greetings of the Canadian Medical Association

Resolution on Caustic Poisons

Dr Burt R Shurly, Section on Laryngology, Otology and Rhinology, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations

Whereas, On the initiative of the American Medical Association bills were introduced in Congress to safeguard the people, and more particularly the children against the danger incident to the distribution of lye and other caustic substances in packages for household use and

Whereas, Congress enacted such legislation in the federal Caustic Poison Act of 1927 and

Whereas, The passage of such legislation was rendered possible by the efforts of certain senators and representatives interested in the protection of public safety as proposed by such legislation, be it

Resolved That the American Medical Association hereby tenders its thanks for the cooperation of these senators and representatives in the promotion of such legislation and congratulates them on the success of their efforts and be it further

Resolved That a copy of this resolution be sent to each such senator and representative

Resolution on Form Letters for Periodic Examination

Dr C S Gorsline, Michigan, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health

Whereas, At the Dallas session of the House of Delegates in 1926 the Board of Trustees was requested by resolution to prepare sets of carefully worded letters as approved models or forms to be *sent out by the various county societies* to their members and to the lay public in reference to extending and promoting the value of periodic health examinations, and

Whereas, At this session there has been presented by said Board only a ruling of the Judicial Council that letters, etc, from individual physicians or groups of physicians which might be construed as soliciting business would be unethical, be it

Resolved, That the Board of Trustees be again requested to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that said examinations can be made and records kept by their own qualified local physicians who are members of the American Medical Association, and in this manner help to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations

The House recessed at 11 30, to reconvene on Thursday afternoon at 2 o'clock should be stimulated in every way possible, and the work carried forward under the existing county and state medical organizations.

2 The splendid report of the Board of Trustees is strongly commended by your committee Lack of time will prevent the proper review of their efforts, which deserve the highest praise Only a few points can be touched on.

> The Journal has pursued the policies of previous years in discussing the progress of medicine as rapidly as possible consistent with scientific conservatism Continuous improvement is being made in the form of presentation of material, notably in illustration of news and in the arrangement of articles within the pages An innovation has been the prompt announcement of new books in the medical field, with brief critical notes
>
> The publication of the section papers within six months after the annual session at which they were read continues to be a difficult problem

The subscriptions to The Journal show an increase of 3,730 during the year There was an average circulation of 89,742 Receipts from advertisements were $798,059

The committee was much interested in the report on *Hygeia*, which is gradually increasing in circulation and usefulness Our members should be vigorously reminded that for three years before the appearance of this splendid journal there was an urgent demand from them for such a publication Strange to say, the subscriptions among doctors is still small

It is the duty of every member of the Association to subscribe and it would actually pay him to do so Here again the Woman's Auxiliary is doing fine work with its general and local committees aiding in the circulation of *Hygeia*, especially in placing it in all public schools and libraries

We should feel particularly proud of the circulation of the *Cumulative Quarterly Index Medicus*, which is practically the only complete index medicus now published and is used extensively both by our physicians and by those in other countries

The contact between this organization and the National Congress of Parent-Teachers Association is yielding splendid results and is bringing about a movement for the systematic examination of children by the family physician There is need for the necessary blanks for these examinations In the health examination of adults material progress has been made, the Association sending out about 1 500 blanks a week

It is gratifying to note that the John Hancock Insurance Company has ceased its connection with commercial organizations doing work of this kind, and is referring such examinations to the family physicians It is to be hoped that other insurance companies will shortly follow this good example

Your committee would urge that continued efforts be made to persuade our members to sever all connections with the commercial organizations both in an advisory capacity and as examiners. Such an act would result in much good to the profession and the public At the same time, the state and county societies ought to make increasing efforts to educate the public as to periodic examinations to be made by their regular physicians

Your committee would strongly commend the effective efforts of the Bureau of Legal Medicine and Legislation in reducing the narcotic tax, would commend its efforts regarding the Sheppard-Towner Act, and would urge that these efforts be continued

Your committee was much interested in the report of the Council on Physical Therapy and believes that much good will come from its investigations and recommendations The neglect of the use of physical therapy by the profession has, in our opinion, been of great aid to the irregulars

3 Your reference committee has seriously considered the report of the Committee to Cooperate with the Commissioner of Internal Revenue and the Secretary of the Treasury. We desire particularly to emphasize that part of the report which says:

> Your committee, however, feels that the Board of Trustees should recommend to the House of Delegates that, in the future, no resolution pertaining to the therapeutic value of anything should originate on the floor of the House of Delegates and that no committee report empowering any such resolution should hereafter be presented until it has been considered by the Council on Scientific Assembly, which may enlist the Council on Pharmacy and Chemistry in its deliberation

We therefore offer the following resolution:

> *That hereafter the House of* Delegates shall not pass any resolution pertaining to the therapeutic value of anything and that no committee *report* empowering any such resolution shall hereafter be presented until it has been considered by the Council on Scientific Assembly and the *Council on* Pharmacy and Chemistry.

In further consideration of the report, we have ascertained that since its publication the Supreme Court of the United States has denied the application for a reargument of the recently decided case of *Lambert* v. *Yellowley et al.* We heartily commend the suggestion of the committee that an attempt be made to draft a bill which shall include an amendment to the Volstead Act to remove the pint in ten days limit, provide regulations for license to prescribe, and have reasonable limitations Later in our report there will be afforded an opportunity to act on this phase.

In view of the splendid work of this special committee and the cordial relation it has established with governmental agencies, we respectfully suggest that the committee be continued

4 The following resolutions, introduced by Dr. T. C Chalmers, New York, from the Medical Society of the State of New York, were referred to this committee:

> *Resolved* That the House of Delegates of the Medical Society of the State of New York at its annual meeting at Niagara Falls on May 9, 1927, and representing, as it does, more than ten thousand duly licensed physicians of this state; mindful, as it is, of the solemn duty of the doctor to render to his patient whatever treatment the true teachings of science declare to be necessary or beneficial in caring for the sick, and resenting with stern disapproval any arbitrary and unscientific curtailment of this obligation, realizing full well that to prevent the physician by arbitrary regulation from using for his patients' benefit whatever therapeutic agent his scientific knowledge and his conscience dictate, emphasizing its disassociation with any political issue, commonly referred to as "wet" or "dry," in unmeasured terms condemns this unjust, unwise, unsound arbitrary and unscientific curtailment of and reflection on the medical profession as a whole, and therefore, not in its own behalf but in that of the lay public, whom it seeks to serve, earnestly petitions for the immediate repeal of this section of the Volstead Law, and, be it further
>
> *Resolved*, That the delegates from New York State to the House of Delegates of the American Medical Association be instructed to present and by all proper means to advocate the adoption of a memorial to the Congress of the United States, demanding the immediate repeal of that section of the Volstead Law and to employ all legitimate and honorable means for the education of the American public on this vital question.

The condition of hysteria into which the country was thrown by the struggle over the prohibition amendment has apparently subsided and the time has come when the American Medical Association should state plainly its attitude with regard to the use of alcohol and alcoholic liquors as therapeutic agents, as well as the position in which the physicians of the country are placed by the present unfortunate state of affairs. Such a statement should have no political bearing whatsoever and is intended to deal with the matter only from the practical and scientific medical standpoint. Alcohol is often very helpful in the treatment of disease and is being used in the practice of a very large number of doctors, many of whom believe it to be an essential and life-saving remedy. These doctors are confronted by a most deplorable situation brought about by the framers of the Volstead Act who unintentionally, we believe, limited the amount of alcohol for one patient to a pint in ten days. Such physicians believe that in certain cases of serious illness a pint in ten days would be useless, and that law-abiding physicians have no other alternative than to violate the law in order to save life. This is wrong and should be corrected. We believe it will be promptly corrected if the situation is properly presented to the authorities in charge

Your committee would therefore recommend that with the cooperation of the special committee headed by Dr. Mayer of Pennsylvania and the excellent executive of the Bureau of Legal Medicine and Legislation, Dr. Woodward, the Board of Trustees be directed to prepare a bill to be presented to Congress correcting the unfortunate provision of the Volstead Act limiting the amount of alcohol used, and providing such regulations as will permit doctors to prescribe whatever amounts of alcoholic liquors may be needed for their respective patients, and subject to such reasonable restrictions as may be thought wise and best after a conference with the head of the Prohibition Department.

5. As regards the purport of the resolution presented by the Medical Society of the State of New York in relation to medicinal alcohol, stripped of all verbiage, this resolution demands that the principle here promulgated takes the issue out of all wet or dry questions and insists that the physician be given by Congress the freedom from restriction to prescribe alcohol in disease as his scientific judgment dictates. We therefore offer the following resolution:

Resolved, That the American Medical Association declares its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine.

6. The above resolution states succinctly the principles involved and the result desired therefrom The question therefore arises, How may this result be best brought about? It has been suggested through the following resolutions offered in the House of Delegates by Dr. Chalmers that a referendum be taken regarding this opinion on therapeutic use of alcohol in disease and that the results of this referendum be offered to Congress:

Resolved, That the trustees of the American Medical Association be requested to send to every registered physician practicing in the United States a ballot requesting him to vote on the following question:

"Are alcohol and alcoholic liquors, as listed in the latest edition of the United States Pharmacopeia, useful therapeutic agents in the treatment of disease?"

And be it further

Resolved, That the trustees of the American Medical Association be requested to submit the returns of this questionnaire in a memorial to Congress, asking that the restrictions on the quantity of alcohol and alcoholic liquors that may be prescribed for the sick be removed

With reference to the resolutions of Dr. Chalmers of New York suggesting a referendum, your committee would recommend that this matter be referred to the Board of Trustees with power to act. In the event that a referendum is considered advisable, your committee would suggest the following questions:

(*a*) Do you believe that legislative bodies should enact laws regulating or limiting the prescribing of therapeutic agents by legally qualified physicians?

(*b*) Do you believe that alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia are useful therapeutic agents in the treatment of disease?

Respectfully submitted.

J. N. HUNSBERGER
SOUTHGATE LEIGH.
H. G. STETSON.
CHARLES J. WHALEN
ARTHUR W. BOOTH, Chairman.

On motion by Dr. Booth, seconded by Dr A. E Bulson, Jr, Indiana, sections 1 and 2 of the report were adopted.

Dr. Booth announced that under the action taken by the House the remainder of the committee's report should be considered in executive session. On motion of Dr. A. E Bulson, Indiana, seconded by Dr. Isaac A Abt, Section on Diseases of Children, and carried, the House went into executive session

EXECUTIVE SESSION

Dr. Booth moved the adoption of section 3 of the report; seconded by Dr. A. T McCormack, Kentucky, and carried

Dr. Booth moved adoption of section 4 of the report The motion was seconded by Dr. T. C Chalmers, New York, and carried.

Dr. Booth moved the adoption of section 5 of the report, seconded by Dr. A. E Bulson, Jr, Indiana After discussion by Drs. Chalmers, McCormack and Leigh, the motion was carried.

Dr. Booth moved the adoption of section 6 of the committee's report; seconded by Dr. A. E. Bulson, Jr, Indiana. After discussion by Drs. Chalmers, Mayer and McCormack, the motion to adopt was unanimously carried

On motion of Dr. Booth, seconded by Dr. N. B. Van Etten, New York, and carried, the report of the committee as a whole was adopted.

Dr A. E. Bulson, Jr, Indiana, moved that all publicity pertaining to the action of the House on the liquor question be given out by the Publicity Department under the Editor of THE JOURNAL, and that no member of the House should submit himself to interview concerning the matter. The motion was seconded by Dr. E P. Sloan, Illinois. Discussed by Dr. Southgate Leigh, Virginia, and Dr. McLain Rogers, Oklahoma, who offered an amendment to the motion that the publicity given out be given in consultation with the Speaker of the House and the Reference Committee on Reports of the Board of Trustees and the Secretary The amendment was accepted by Dr. Bulson, and the motion as amended was carried.

Under the head of new business, Dr J. D Brook, Michigan, presented a resolution relative to the therapeutic use of alcohol and alcoholic liquors and other therapeutic agents. Referred to the Judicial Council

The executive session adjourned, and the House reconvened in general session

NEW BUSINESS

Amendment to the Constitution

Dr. J. C. Litzenberg, Minnesota, proposed amendment of Article 12 of the Constitution so as to change the number of votes required to amend the Constitution, and amendment of Section 5, Chapter II, of the By-Laws so as to change the number constituting a quorum of the House of Delegates.

Presentation of Dr. T. C. Routley

The Secretary, Dr West, presented Dr T C Routley of the Canadian Medical Association, who addressed the House briefly, conveying the greetings of the Canadian Medical Association.

Resolution on Caustic Poisons

Dr. Burt R. Shurly, Section on Laryngology, Otology and Rhinology, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, On the initiative of the American Medical Association bills were introduced in Congress to safeguard the people, and more particularly the children, against the danger incident to the distribution of lye and other caustic substances in packages for household use, and

WHEREAS, Congress enacted such legislation in the federal Caustic Poison Act of 1927, and

WHEREAS, The passage of such legislation was rendered possible by the efforts of certain senators and representatives interested in the protection of public safety as proposed by such legislation, be it

Resolved, That the American Medical Association hereby tenders its thanks for the cooperation of these senators and representatives in the promotion of such legislation and congratulates them on the success of their efforts, and be it further

Resolved, That a copy of this resolution be sent to each such senator and representative

Resolution on Form Letters for Periodic Examination

Dr. C. S Gorsline, Michigan, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, At the Dallas session of the House of Delegates in 1926 the Board of Trustees was requested by resolution to prepare sets or carefully worded letters as approved models or forms to be *sent out by the various county societies* to their members and to the lay public in reference to extending and promoting the value of periodic health examinations, and

WHEREAS, At this session there has been presented by said Board only a ruling of the Judicial Council that letters, etc, from individual physicians or groups of physicians which might be construed as soliciting business would be unethical, be it

Resolved, That the Board of Trustees be again requested to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that said examinations can be made and records kept by their own qualified local physicians who are members of the American Medical Association, and in this manner help to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations

The House recessed at 11:30, to reconvene on Thursday afternoon at 2 o'clock.

Fourth Meeting—Thursday Afternoon, May 19

The meeting was called to order at 2 o'clock by the Speaker, Dr. Fred C. Warnshuis.

Dr. J. D. Brook of the Credentials Committee reported that since the last report there had been filed with the committee satisfactory credentials from eight additional delegates, making a total registration of delegates of 157. The report was adopted.

The Secretary called the roll.

Supplementary Report of Board of Trustees

RESOLUTION ON NURSING AND NURSING EDUCATION

Dr. J. H. Walsh, secretary of the Board of Trustees, presented the following report:

The Board of Trustees approves the appropriation of the sum of $5,000 for one year to aid in the work of the Committee on the Grading of Nursing Schools, with a view to further consideration at the end of the one year period.

This section of the report was adopted.

REPORT OF THE COMMITTEE ON INCAPACITATED PHYSICIANS

The Board of Trustees recommends approval of the report of the committee and the conclusions adopted. It is pointed out that in its investigation the committee has accumulated a large amount of data on this particular subject, which it will turn over to the Secretary of the American Medical Association, and it is recommended that the Secretary of the Association be requested to secure full information with respect to what is being done in this regard by the profession in state and county societies so that it may generally be available, to the end that other states and component societies may take measures to afford relief for worthy physicians, or their widows and orphans who may be in need, and that the Secretary report with recommendations to the House of Delegates at the next annual session.

The Board of Trustees approves also the conclusions of the committee to the effect that the results of its investigation are convincing that the need for a national home for incapacitated and indigent physicians is not sufficient to warrant the American Medical Association in establishing, managing and sustaining a home.

The Board of Trustees recommends publication in full in The Journal of the report of the committee, and urges secretaries of all state societies to recommend to their members careful consideration of this.

This section of the report was adopted.

Dr. Arthur J. Bedell, New York, moved that the report be adopted as a whole, seconded by Dr. W. T. Elam, Missouri, and carried.

Supplementary Report of the Judicial Council

Dr. M. L. Harris, Chairman of the Judicial Council, presented the report of the Judicial Council on a resolution relative to the therapeutic use of alcohol and alcoholic liquor and other therapeutic agents The resolution read as follows:

> *Resolved,* That every resolution relating to alcohol or alcoholic liquor or to any other therapeutic agent shall be presented in writing, and shall be referred, without reading, to the Board of Trustees for consideration and report. The Board shall report its findings and recommendations as speedily as may be practicable, accompanied by a report from the Council on Pharmacy and Chemistry if the therapeutic value of the subject matter of the resolution is involved.
>
> The resolution and the report, if any, shall thereupon be considered and acted on by the House of Delegates.

This resolution contemplates a radical change in the procedure in the transaction of business by this house, in that it provides that certain resolutions introduced shall be referred at once without being read. It has always been the custom of this assembly to have the resolutions read before they are referred. Every member of the house has the right to know the contents of resolutions that are offered in order that he may have an opportunity to express his views on the subject to the committee to which it has been referred.

The Judicial Council, therefore, is of the opinion that the adoption of this resolution would establish a precedent that would be undesirable and unwise. Furthermore, the resolution is too wide in its scope, as it would require that every resolution dealing in any manner with any therapeutic agent be referred at once to the Board of Trustees.

The Council recommends, therefore, that the resolution as worded be not adopted.

Dr. Harris moved adoption of the report; seconded by Dr. Chalmers.

Dr. J. D. Brook, Michigan, as the introducer of the resolution, asked as a matter of privilege that the wording in the resolution be changed to read: "That every resolution presented relating to the alcohol question be referred to the Board of Trustees for investigation."

The Speaker referred the amendment and the entire resolution back to the Judicial Council for later report.

Reference Committee on Legislation and Public Relations

RESOLUTION OF THANKS FOR ACTION ON CAUSTIC POISON BILL

Dr. E. J. Goodwin, Missouri, presnted the following report of the Reference Committee on Legislation and Public Relations:

> The committee approves the resolution extending to the members of Congress the thanks of the American Medical Association for passing the caustic poison act in 1927. It recommends that a copy of the resolution be sent to each Senator and Representative.

Dr. Goodwin moved the adoption of the report; seconded by Dr. A. T. McCormack, Kentucky, and carried.

Report of the Reference Committee on Hygiene and Public Health

FORM LETTERS FOR PERIODIC EXAMINATIONS

Dr. H. M. Brown, Wisconsin, presented the following report of the Reference Committee on Hygiene and Public Health:

> Whereas, At the Dallas session of the House of Delegates in 1926 the Board of Trustees was requested by resolution to prepare sets of carefully worded letters as approved models or forms to be sent out by the various county medical societies to their members, and to the lay public in reference to extending and promoting the value of periodic health examinations, and
>
> Whereas, At this session there has been presented by said Board only a ruling of the Judicial Council that letters and so forth from individual physicians or groups of physicians which might be construed as soliciting business would be unethical; be it
>
> *Resolved,* That the Board of Trustees be again requested to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that the said examinations can be made and records kept by their own qualified local physicians who are members of the American Medical Association, and in this manner help to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations.

This resolution was introduced by Dr. C. S. Gorsline, Michigan, May 18, 1927, referred to this committee, and the Reference Committee on Hygiene and Public Health endorses the above resolution and moves its adoption.

Dr. A. T. McCormack, Kentucky, seconded the motion, which was carried.

Reference Committee on Amendments to the Constitution and By-Laws

Dr. Holman Taylor, Chairman, presented a section of the committee's original report as follows:

We recommend that Section 1, Article 5, of the Constitution be amended so as to read as follows:

Section 1. The legislative powers of the Association reside in the House of Delegates. The House of Delegates shall transact all business of the Association not otherwise specifically provided for in this Constitution and By-Laws, and shall elect the general officers.

It shall have the power to discipline or expel a member of the American Medical Association or a Fellow of the scientific assembly on recommendation of the Judicial Council.

The question was on the adoption of the recommendation of the Reference Committee. There were 101 votes in the affirmative; two votes in the negative; since an amendment to the Constitution and By-Laws requires three fourths of the votes of the delegates registered at the session, 118 votes were required for adoption; 103 were cast, so the proposed amendment was lost.

Resolution on Cosmetics

Dr. Howard Fox, Section on Dermatology and Syphilology, presented the following resolution:

Whereas, The Committee on Cosmetics of the Section on Dermatology and Syphilology has conducted an investigation in regard to the evils resulting from the use of certain hair dyes, dyed furs and cosmetics, and

Whereas, Said committee has been studying proposed legislation to curb such evils and is cooperating with a like committee from the American Dermatological Association; therefore be it

Resolved, That the Section on Dermatology and Syphilology through its delegate does hereby submit this question to the House of Delegates for further action.

Francis J. Senear,
Udo J Wile.
Harold N. Cole, Chairman.

Dr. Fox moved the adoption of this resolution; seconded by Dr. A. J. Bedell, New York, and carried.

Resolution on Contraception

Dr. John O. Polak, Section on Obstetrics, Gynecology and Abdominal Surgery, presented a resolution passed by the section in 1925:

Resolved, That we hereby recommend the alteration of existing laws wherever necessary so that the physicians may legally give contraceptive information to their patients in the regular course of practice.

Dr. Polak moved that it be referred to the Board of Trustees; seconded by Dr. Thomas C. Chalmers, New York, and carried.

Resolution on Health Hazards in Industry

Dr. W. S. Leathers, Section on Preventive and Industrial Medicine and Public Health, presented the following resolution:

Whereas, The reports of the conference committees have shown that health hazards are arriving constantly in industries, which require intensive field investigation and special laboratory studies before proper measures can be devised for the protection of the workers in the industries and often of the general public as well, and

Whereas, Few states are provided with the trained personnel and special laboratory facilities necessary for the study of such health hazards; therefore be it

Resolved, That this conference respectfully petition the Congress of the United States to make possible an increase in the personnel and resources of the United States Public Health Service in order that the service may extend its activities in the field of industrial hygiene.

Dr. Leathers moved that the resolution be adopted; seconded by Dr. W. T. Elam, Missouri.

Dr J. W. Van Derslice, Illinois, moved to amend that it be sent to the Board of Trustees; seconded by Dr. Arthur J. Bedell, New York. The motion to refer to the Board of Trustees was put to a vote and carried.

Unfinished Business

NOTICE OF AMENDMENT TO BY-LAWS

Dr. Albert E. Bulson, Jr., Indiana, proposed an amendment to the By-Laws defining the power of the Judicial Council as follows:

The judicial power of the Association shall be vested in the Judicial Council, whose decision, unless modified by the House of Delegates, shall be final.

The notice of amendment lies over to the next annual session.

Dr. George E. Follansbee, Ohio, proposed the amendment to Article 1, Section 5, of the Constitution as recommended by the Reference Committee on Amendments to the Constitution and By-Laws. This will lie over for one year

On motion, duly seconded and carried, the action taken by the House of Delegates, amending Section 1, Chapter IX, of the By-Laws was rescinded.

CHANGING MEMBERSHIP OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Dr. C. E. Humiston, Illinois, having unanimous consent, presented the following resolution:

Resolved, That section 1, Chapter VIII, of the By-Laws be amended as follows·

Strike out the following sentence: "The Council on Medical Education and Hospitals shall consist of seven members, each elected for seven years," and the following. "except that in 1925 three members of the Council on Medical Education and Hospitals shall be elected by the House of Delegates," and insert in the first sentence after the word "assembly" the following:

"But excepting the Council on Medical Education and Hospitals," and insert in the first sentence after the word "committee," where it first occurs, the following "except the Council on Medical Education and Hospitals" and insert after the word "Council" at the end of said section the following paragraph

"The Council on Medical Education and Hospitals shall consist of six members, two of whom shall be elected each year for a term of three years immediately following election Elections shall be by the House of Delegates from nominations submitted by the President For each vacancy to be filled, the President shall nominate two Fellows, for action by the House of Delegates at the time of the election of officers as fixed by the By Laws. No Fellow shall be eligible for election for more than two consecutive terms under the provisions of this section as hereby amended, provided, however, that in 1928 the President shall submit nominations for the election of two members to serve for one year, two members to serve for two years and two members to serve for three years, and members shall be elected accordingly.

This lies over until the next annual session.

President Jabez N. Jackson addressed the House briefly in presenting Mr Camel Beg of Wellington, New Zealand, president of the Wellington, New Zealand, Medical Society.

Mr. Camel Beg spoke a word of greeting.

The Speaker introduced the Vice President of the Association, who introduced the president of the Woman's Auxiliary of the American Medical Association

Vice President John O. McReynolds said: Mr. Chairman, Ladies and Gentlemen: I must confess that this is without doubt the most embarrassing moment of my life (laughter) to be called on to acknowledge thus publicly that my wife always has the last word. (Laughter.) I sincerely appreciate this compliment which you have extended to her, and without attempting further to encroach on the time allotted to her, I beg you to be just as lenient with her as I have been for thirty years. (Laughter and applause)

THE WOMAN'S AUXILIARY

Mrs. McReynolds: Mr Chairman, Mr Speaker and Friends of the House of Delegates to the American Medical Association: On behalf of the Woman's Auxiliary to the American Medical Association, I wish to express our sincere appreciation of the courtesy you have extended to us to appear before you today.

The Woman's Auxiliary is what its name implies, a reserve force: groups of conscientious and devoted wives organized to come at the call of the medical profession While our husbands are wrestling with the purely scientific problems, we are playing our humble part in the drama of their life's work—our function being to cooperate in alleviating the suffering of humanity, in preserving the health of our people, and teaching the public, or educating it as far as we can, to a higher appreciation of the medical profession.

Of course, our pledge is service to our husbands, our homes, our community, our country Of course, our first, our natural and enduring duty is to make sweeter and brighter all the associations of the home promoting the efficiency of our husbands by providing for them every comfort and consideration and lending them our sympathetic interest, and encouraging them in everything pertaining to their medical progress.

I am sure all of you have often listened to the wise counsel of our venerable Dr Keen of Philadelphia. He has said we must always remember that the husband is the head of the family, but we must also not forget that the wife is the neck, and usually turns the head in any direction she chooses. (Laughter.)

The Woman's Auxiliary only hopes to help their husbands keep the head uplifted. It is already turned in the right direction, but we are a young and infant institution, and we need the advice and counsel of able men like you, and we trust that you may give us your guidance and help. I thank you. (Applause.)

Dr. Holman Taylor, Texas, moved that the House of Delegates request the Board of Trustees to appoint a liaison committee between the American Medical Association and the Woman's Auxiliary of the American Medical Association; seconded by Dr. A. T. McCormack, Kentucky, and carried.

Election of Officers

The Speaker asked for nominations for President.

Dr. Charles O'Donovan, Maryland, presented the name of Dr William Sydney Thayer, Maryland. Dr. Thayer's nomination was seconded by Dr. Randolph Winslow, Maryland; Dr. Walter Ralph Steiner, Connecticut; Dr S. M. Blackshear, Louisiana, and Dr. E. A Hines, South Carolina

Dr Philip S. Roy, District of Columbia, presented the name of Dr William Gerry Morgan, District of Columbia. Dr Morgan's nomination was seconded by Dr. J. D. Brook, Michigan; Dr Victor G Vecki, California; Dr. F A. Carmichael, Kansas; Dr Edward Livingston Hunt, New York; Dr Frank Smithies, Section on Gastro-Enterology and Proctology, and Dr Thomas C Chalmers, New York.

Dr. W. Blair Stewart, New Jersey, presented the name of Dr Philip Marvel, Sr, New Jersey. Dr Marvel's nomination was seconded by Dr Henry B Costill, New Jersey, and Dr Arthur W Booth, New York

Dr A T McCormack, Kentucky, moved that the nominations be closed, seconded by Dr. Arthur J Bedell, New York, and carried

A total of 135 votes was cast, 62 for Dr Thayer; 59 for Dr Morgan, and 14 for Dr. Marvel. Ballots were cast for the two highest candidates, Dr Thayer and Dr Morgan

Dr William D Haggard, Nashville, and Dr Ray Lyman Wilbur, California, ex-presidents, addressed the House

There were 136 votes cast, of which Dr W S Thayer received 70 and Dr William Gerry Morgan received 66

Dr Thayer, having received the majority of the votes cast, was declared President-Elect of the American Medical Association

Dr Philip S Roy, District of Columbia, moved that the election of Dr Thayer be unanimous, seconded by Dr W Blair Stewart, New Jersey, and carried

Dr Frank Smithies, Section on Gastro Enterology and Proctology, nominated Dr Charles A Elliott, Illinois, for Vice President, seconded by Dr Philip S Roy, District of Columbia

Dr Walter F Donaldson, Pennsylvania, moved that nominations be closed, seconded by Dr J Newton Hunsberger, Pennsylvania, and carried

Dr Elliott was elected Vice President

Dr Albert E Bulson, Jr, Indiana, nominated Dr Olin West, Chicago, for Secretary, seconded by Dr Arthur J Bedell, New York Dr Philip S Roy, District of Columbia, moved nominations be closed; seconded by Dr C S Gorsline, Michigan, and carried

Dr West was unanimously elected Secretary of the Association

Dr. Edward B Heckel, Board of Trustees, submitted the name of Dr Austin Albert Hayden of Chicago as Treasurer Dr Hayden was unanimously elected Treasurer of the Association

Vice Speaker Allen H Bunce took the Chair.

Dr Carl F Moll, Michigan, nominated Dr Fred C. Warnshuis, Michigan, as Speaker of the House of Delegates, seconded by Dr S W Welch, Alabama, and Dr A T. McCormack, Kentucky.

Dr N B Van Etten, New York, moved that the nomination be made unanimous, and that nominations be closed, seconded by Dr Arthur W Booth, New York, and carried.

Dr. Fred C. Warnshuis was unanimously elected Speaker of the House of Delegates

Speaker Fred C. Warnshuis took the Chair.

Dr. C. W. Roberts, Georgia, nominated Dr. Allen H. Bunce, Georgia, as Vice Speaker; seconded by Dr. S. W. Welch, Alabama.

Dr Arthur J. Bedell, New York, moved that nominations be closed; seconded by Dr. Albert Soiland, California, and carried

Dr. Allen H. Bunce was unanimously elected Vice Speaker.

Dr. William H. Mayer, Pennsylvania, presented Dr. Edward B. Heckel, Pennsylvania, to succeed himself as Trustee; seconded by Dr. N. B. Van Etten, New York; Dr. John Edward Lane, Connecticut, and Dr. F. B. Lund, Massachusetts.

Dr. Albert E. Bulson, Jr., Indiana, moved that the nominations be closed; seconded by Dr. A. T. McCormack, Kentucky, and carried.

Dr. Heckel was unanimously elected to succeed himself as Trustee.

Dr H. M Brown, Wisconsin, nominated Dr. Rock Sleyster, Wisconsin, to succeed himself as Trustee of the American Medical Association; seconded by Dr. Albert Soiland, California

Dr A. T. McCormack, Kentucky, moved that nominations be closed; seconded by Dr. Thomas C. Chalmers, New York, and carried.

Dr Rock Sleyster was unanimously reelected.

The President, Dr. Jabez N. Jackson, presented the following nominations for standing committees:

For the Judicial Council, Dr. Donald Macrae, Jr., Iowa.

For the Council on Medical Education and Hospitals, Dr. Emmett P North, Missouri.

For the Council on Scientific Assembly, Dr. Frank H Lahey, Massachusetts

Dr E J Goodwin, Missouri, moved that the nominations submitted by the President be confirmed; seconded by Dr A T McCormack, Kentucky, and carried.

Election of Honorary, Affiliate and Associate Fellows

The Secretary presented nominations for Honorary Fellowship from the Section on Radiology of Dr. A. Joseph Riviere of Paris, from the Section on Dermatology and Syphilology, of Prof L. M. Pautrier of Strasbourg

Dr Albert Soiland, California, moved the election of Dr Rivière of Paris; Dr. William Allen Pusey, Illinois, the election of Dr Pautrier of Strasbourg.

The Secretary presented from the Section on Nervous and Mental Diseases the nomination for Honorary Fellowship of Dr C. Mingazzini, Rome

Dr John Edward Lane, Connecticut, said that the Council on Scientific Assembly approved the nominations.

Dr Albert Soiland, California, moved the election of Drs Riviere, Pautrier and Mingazzini, to Honorary Fellowship, seconded by Dr. William Allen Pusey, Illinois, and carried

The Secretary presented for the Section on Pharmacology and Therapeutics nominations for Associate Fellowship in the American Medical Association:

W T Bovie, Laboratory of Biophysics, Cambridge, Honorary Fellow of the Massachusetts State Medical Society.

Maurice L Tainter of Johns Hopkins Medical School, Baltimore

Dr Bovie and Dr Tainter were elected.

The secretary submitted a list of nominations for Associate Fellowship approved by the Judicial Council and those nominated were elected

Address of President-Elect W. S. Thayer

Mr Chairman and Gentlemen.

I don't know what to say I can only say that I am very proud, that I feel very earnestly it is the greatest honor that could come to a medical man. I do not know whether there is very much good in me, but what there is I shall certainly try to give to the Association. I thank you from the bottom of my heart. (Applause)

The Secretary presented from the Section on Pathology and Physiology the names of Adolph Bolliger of the Henry Ford Hospital, Detroit; Earl B. McKinley of Columbia University, New York, Allan Winter Rowe of the Department of Biological Chemistry of Boston University Medical School, Boston

From the Section on Preventive and Industrial Medicine and Public Health, Wilson G. Smillie of the International Health Board of New York; James A. Tobey, formerly of the Massachusetts Institute of Technology, now of New York.

Dr. E. J. Goodwin, Missouri, moved to accept the recommendations of section officers and of the Judicial Council without reading; seconded by Dr. Albert Soiland, California, and carried.

Place of 1928 Annual Session

Dr. G. Wilse Robinson, Missouri, presented the attractions of Kansas City.

Dr. H. M. Johnson, Minnesota, extended an invitation to meet in Minneapolis.

Dr. Joseph A. Pettit, Oregon, asked to defer the invitation of Portland to 1929.

The President placed before the House of Delegates the name of Dr. Frank W. Cregor, Indiana, for appointment to the vacancy on the Judicial Council created by the election of Dr. W. S. Thayer as president-elect.

Dr. E. J. Goodwin, Missouri, moved that the nomination be confirmed, seconded by Dr. J. F. Hassig, Kansas, and carried.

There were 119 votes cast, of which Kansas City received 51, Minneapolis 67 and Portland 1.

Resolution on Alcohol Resolutions

Dr. M. L. Harris, Judicial Council, reported on the amended motion, which was referred to the Judicial Council. The resolution now reads: "Every resolution presented, relating to the alcohol question, shall be referred to the Board of Trustees for investigation." As this resolution eliminates all of the objections which the Council had to the former resolution, the Council recommended that the resolution be adopted; seconded by Dr. J. D. Brook, Michigan, and carried.

Dr. Wendell C. Phillips, New York, moved that the Association express its thanks by vote for the courteous treatment, excellent arrangements for the meetings, and excellent work done by the Committee of Arrangements, particularly mentioning its chairman; appreciation to the Women's Committee of Arrangements, and appreciation to the President of the United States. He stated that from almost every conceivable standpoint one thing had been demonstrated, and that was that the city of Washington is an excellent place to hold the annual session from time to time.

Dr. Thomas C. Chalmers, New York, seconded the motion.

The Secretary expressed sincere gratitude, as an officer of the House of Delegates, for the splendid work of the local Committee of Arrangements, under Dr. William Gerry Morgan's leadership, in preparing for the annual session. He asked also that the motion include the Washington Convention Bureau and those in charge of the Washington Auditorium.

The motion was carried unanimously.

THE MOTION PICTURE THEATER

The Motion Picture Theater, which is under the management of the Scientific Exhibit, was located in the unusually large balcony of the Washington Auditorium, in which building both the Technical and the Scientific exhibits were housed. As has characterized this feature during the last four years, the theater was operated strictly on schedule from noon to 5:30 on Monday, from 9 to 5:30 on Tuesday, Wednesday and Thursday, and from 9 to 12 on Friday. The talks, illustrated with lantern slides or motion pictures, were of practical interest. On Wednesday and Thursday afternoons an unusual demonstration was given through the courtesy of the Bell Telephone Laboratories, Inc., of the American Telephone and Telegraph Company, whereby heart sounds were magnified. The huge amount of apparatus installed permitted an amplification of sound ten trillion times, so that every one of the 2,500 who attended the Wednesday demonstration (or the 2,000 who attended the Thursday demonstration) could hear the heart beats. The same apparatus was also courteously made adaptable for the speakers, thus making a public address system probably more powerful and clear than ever used before in a hall.

THE SCIENTIFIC EXHIBIT

The Scientific Exhibit at Washington exceeded any previous exhibit for the impressive amount of unusually high grade scientific work, and for the dignified manner in which the exhibits were presented. The personal demonstrations were appreciated by thousands of visitors. This year strict admission requirements were enforced, so that only those who were Fellows of the Association, or their guests, were permitted to investigate the exhibits. In increasing numbers many of the papers in the section were correlated with the scientific exhibits, and notice of such correlation was published in the official program.

The Section on Urology, with the American Social Hygiene Association cooperating, sponsored an interesting section exhibit on "Gonorrhea in the Male," under a committee composed of Drs. Walter M. Brunet, Francis R. Hagner, chairman, E. L. Keyes and Alexander Randall. The Section on Dermatology and Syphilology had another one of its attractive exhibits, this time dealing mainly with fungus diseases. The committee in charge, composed of Fred D. Weidman, F. J. Eichenlaub and Clark W. Finnerud, deserve praise for the manner in which this exhibit was correlated; in this group were two exhibits from abroad; namely, those of Dr. C. L. Karrenberg of Hamburg, Germany, and Dr. Azelio Marchi of Siena, Italy. The section also secured the cooperation of the Bureau of Investigation of the A. M. A., which prepared for it an elaborate poster exhibit dealing with Cosmetic Nostrums.

Three special exhibits authorized by the Board of Trustees were also points of attraction. The Fresh Pathology Exhibit was replete with unusual surgical and necropsy material. It was excellently demonstrated by a large corps of local pathologists under the chairmanship of Dr. Oscar B. Hunter. Continuing the program of last year, the Exhibit on Immunology was carried forward for another year, incorporating certain subjects which were not included last year. The exhibit was under the active charge of Dr. H. R. Wahl of the University of Kansas, with collaboration of Drs. G. N. McCoy, R. E. Dyer, W. T. Harrison and J. H. White of the United States Public Health Service. A beautiful and instructive correlating exhibit on "Smallpox Vaccination" was also shown in an adjacent booth, under the auspices of the U. S. Public Health Service, by Dr. J. P. Leake. The third of the special exhibits was that on fractures. The committee appointed to take charge of this exhibit also supervised a symposium, which was held on Wednesday. Keen interest was shown in both the symposium and the exhibit. In fact, during times of the demonstration of the exhibits, it was almost impossible to get close enough to see the demonstrator.

In each of the seven small booths there was a volunteer from the United States Army Medical Service acting as "subject" for the demonstration. The type of fractures to which the exhibit was limited were fractures of the shaft of the femur, of the shaft of the humerus, and of the lower radius. The Cooperative Committee on Fractures was composed of Kellog Speed, William Darrach and Nathaniel Allison. Aiding this committee was an advisory board consisting of William S. Baer, Joseph A. Blake, F. J. Cotton, William L. Estes, Sr., M. L. Harris, George W. Hawley, M. S. Henderson, James M. Hitzrot, William L. Keller, Frank R. Ober, Dallas B. Phemister, Emmet Rixford, Charles L. Scudder and William S. O'Neill Sherman. In addition, there were seventy physicians from all parts of the United States who took turns in the continuous demonstrations.

Except in the educational classification, where the work of organizations is exhibited, the material was presented in the names of the individuals, and not in the name of the institution in which it was done.

This year an attractive part of the exhibit was the uniform signs of white lettering and black background, in each booth, on which the name of the exhibit appeared first, then the name of the individual, followed by the institution and address. As has become custom, the awards were made to individuals. The jury experienced great difficulty this year in making the awards because of the various types of exhibits and the excellence of each type. Practically each member of the committee spent a day and a half in the Scientific Exhibit studying the various exhibits.

The arrangement of the exhibit lent itself particularly to a dignified appearance; it was located on the ballroom floor of the large auditorium. There were spacious avenues and intersecting aisles. The space utilized was about the same amount as that at Dallas, though the number of exhibits was greater. Because of the limitations of space this year, it was necessary to allot less space to the individual exhibits. This, however, did not detract from the exhibits, except in case of organizations which had about 50 per cent of the usual amount. The total number of exhibits was ninety-five, and the total number of exhibitors approximately two hundred.

REPORT OF COMMITTEE ON AWARDS

SCIENTIFIC EXHIBIT

The Committee on Awards reports:

The gold medal to F. W. Hartman, Adolph Bolliger and H. P. Doub, Henry Ford Hospital, Detroit, for an exhibit on cardiorenal and cardiac studies, illustrated with specimens showing the heart and kidney lesions produced by deep roentgen rays. The award is based on the great significance and excellence of the presentation.

The two silver medals are awarded to the following (alphabetically arranged):

Chevalier Jackson, Philadelphia, for exhibit showing household accidents to children, and their prevention.

Hideyo Noguchi, Rockefeller Institute for Medical Research, New York, for exhibit illustrating studies of Oroya fever (verruga peruana) and trachoma.

The bronze medals are awarded to the following (alphabetically arranged):

Vilray P. Blair, St. Louis, for an exhibit on plastic surgery, dealing with the retracted upper lip and nose.

W. M. James, L. B. Bates, L. Getz and J. J. Vallarino, Medical Association of the Isthmian Canal Zone from the Ancon, Santa Tomas, and Panama Hospitals, for an exhibit illustrating the diagnosis, etiology and pathology of infection with *Endameba histolytica.*

The committee also awards certificates of merit to:

H. J. Corper, National Jewish Hospital for Consumptives, Denver, for an exhibit illustrating the cultivation of tubercle bacilli and the organic reaction to tuberculosis.

Howard Fox, New York, for an exhibit on the fungus diseases of the skin and the excellence of demonstration.

A. H. McIndoe and V. S. Counseller, Mayo Clinic, Mayo Foundation, Rochester, Minn., for an exhibit illustrating pathologic conditions of the liver in corrosion specimens.

Bernard H. Nichols, Cleveland Clinic, Cleveland, for roentgenographic exhibit illustrating normal and abnormal positions of the aorta.

Ernest Scott and R. A. Moore, Ohio State University, Columbus, for exhibit illustrating pathologic anatomy of the kidney.

Benjamin Terry, Nashville, Tenn., for exhibit of a new stain and method in tissue microscopy, and excellence of demonstration.

Honorable mention is given to the following (arranged alphabetically):

Florence E. Ahlfeldt, Philadelphia, for exhibit illustrating coccidioidal granuloma.

Arthur J. Bedell, Albany, N. Y., for exhibit of photographs of the living eye.

Janet Caldwell and George T. Caldwell, Dallas, Texas, for exhibit illustrating bacteriophage.

C. L. Karrenberg, Hamburg, Germany, for exhibit illustrating fungi and fungus diseases as encountered in Europe.

The committee commends the Special Cooperative Exhibit on Fractures, and desires to thank the members of the committees in charge, and particularly Surg. Gen. Meritt W. Ireland, Lieut.-Col. W. L. Keller and Major T. S. Melbane, of the U. S. Army Medical Corps, for supplying facilities for carrying out the demonstrations. The committee commends the exhibit on Morbid Anatomy, excellently demonstrated by the members of the Committee on Fresh Pathology, and recommends that this feature be continued next year. It also commends the Special Exhibit on Immunology, and desires to express its thanks to the personnel in charge and for the active cooperation of the U. S. Public Health Service. (The special exhibits are not open to awards.)

The committee was impressed by the addition of another section exhibit, and commends the work of the committee for the Section on Urology, which was charged with fostering the collection of individual exhibits dealing with gonorrhea in the male.

The committee particularly wishes to express its appreciation and commendation of the many educational and government exhibits.

The Committee on Awards suggests the advisability of establishing different classes of awards for different kinds of exhibits, owing to the difficulty of judging the comparative merits of exhibits in totally different fields.

The committee desires to comment concerning the general neatness and dignified appearance of the Scientific Exhibit; also the method of lighting; the many and excellent personal demonstrations and the spirit of cooperation on the part of the exhibitors in aiding the management.

LUDVIG HEKTOEN, Chairman.
P. M. HICKEY.
GUY C. LANE.
PHILLIP MARVEL.
DALLAS B. PHEMISTER.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ALABAMA

Personal.—Dr. Richard V. Taylor, Jr., for some years a missionary in China, has returned to this country expecting to enter private practice at his old home in Mobile. Dr. Taylor, it is reported, lost "everything" in the recent military activities in China.

No Money for Jackson County Health Unit.—The commissioners of Jackson County failed to vote the appropriation of $5,000 for the county health unit, and county appropriations ceased, March 1. During the last two years, with the assistance of the state and federal governments, Jackson County has maintained a health unit comprising a physician, nurse, sanitary inspector and secretary.

ARIZONA

Hospital Changes Name.—The Tucson General Hospital has been taken over by the hospital board of the Methodist Episcopal Church and its name changed to the Southern Methodist Hospital and Sanatorium; about $100,000 is to be spent on new buildings and other improvements.

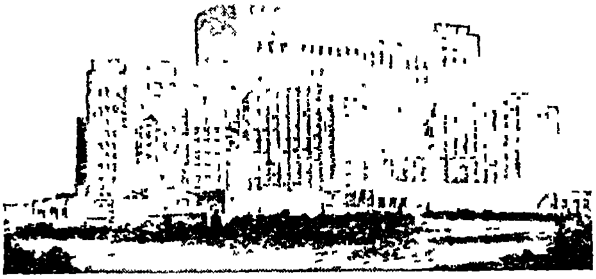
ARKANSAS

Personal.—Dr. Albert L. Watson, Newport, has been appointed a member of the state board of health to succeed Dr. Rutial O. Norris, Tuckerman, and Dr. William P. Parks, Hot Springs, appointed a member of the board to succeed Dr. Samuel A. Southall, Louann, resigned.——Dr. John H. McLean, Caddo Gap, addressed [illegible] County Medical Society, recently, on "[illegible]"; Dr. William D. Freeman, Mount Ida, was elected president of the society.——Dr. James B. McElroy, Memphis, Tenn., addressed the Mississippi County Medical Society, Blytheville, recently, on "Acute Nephritis," and Dr. John L. McGehee, Jr., Memphis, on "The Acute Abdomen."

CALIFORNIA

Personal.—Dr Herbert M Evans, of the department of anatomy, University of California Medical School, has been elected a member of the National Academy of Sciences

Los Angeles General Hospital Enlarged.—The building represented here is under construction at the Los Angeles General Hospital, Los Angeles, and when completed will add 1,600 beds for the care of acutely ill patients A unit of 771 beds probably will be in use by April 1, 1929, and the remainder during the next four years The total floor area of the new building will be 29 acres, about 121,000 barrels of cement, 45,000 cubic yards of sand and 60,000 cubic yards of rock will be required in its construction The estimated cost is $8,000,000 A ward unit in the new building has twenty-eight beds arranged in sub-units of four wards of six beds, one of two beds and two of one bed Each ward will have a large porch or roof adjoining The maternity service will occupy an entire floor, providing for 132 mothers, with complete suites for delivery and operation rooms The surgical service will have a "clean section" of six operating rooms and one amphitheater seating 250, and provision will be made so that the space can be doubled if required The infected surgery service will occupy an entire floor of about 168 beds with two completely equipped suites on the floor, so that no infected surgery patients will be necessarily moved from floor to floor or ward to ward The total bed capacity of the hospital in a few years will amount to about 2,874 The number of patients admitted in the year ending June 30, 1926 was 20,528, and the daily average number in the hospital was about 1,100 The percentage of the total beds occupied during the year was 95 There is a daily waiting list of 100 patients, 70 per cent of whom have been recommended for admission by the outpatient department, which supervises all admissions to the hospital The average number of employees in all departments was 1,137 There are, at present, about fifty-seven interns, graduates of medical colleges throughout the country, on duty at the hospital, and a staff of about 260 physicians who give their services free The hospital is maintained by the taxpayers of the county for the indigent sick and injured



COLORADO

Dinner to Dr. Jackson.—The Ophthalmologic Club of Buffalo will tender a reception and dinner, June 17, in honor of Dr Edward Jackson, Denver Dr Jackson will address the first annual meeting of the Guild of Prescription Opticians of America on 'Designation of Lenses"

CONNECTICUT

Promotions at Yale School of Medicine.—Yale University School of Medicine has announced the following faculty appointments, effective the beginning of the next college year Drs John P Peters and Raymond G Hussey, promoted from associate professors of medicine and pathology, respectively, to professors, Dr Howard W Haggard, promoted from assistant professor to associate professor of applied physiology

GEORGIA

Fire at Medical School.—Almost the entire south wing of the University of Georgia Medical Department, Augusta, was destroyed by fire, May 8

Society News.—Dr J E New, Dexter, has been elected president of the Laurens County Medical Society——Dr Keith C Rice, Atlanta, addressed the Fulton County Medical Society, May 19, on "Surgical Treatment of Ulcerative Colitis"——At the annual meeting of the Fifth District Medical Society, Decatur, May 6, Dr Frederick M Johnson, Atlanta, read a paper on 'Cancer", Dr Walter B Emery, Atlanta, on "Syphilis" and Dr Frank Lee Bivings, Atlanta, on 'Immunization Against Measles" Dr Wiley S Ansley, Decatur, was elected president, and Dr Reuben T Camp, Jr, Fairburn, secretary.

ILLINOIS

Bills Introduced—Senate bill 535 would repeal the prohibition act House bill 724 would provide for the establishment of a homeopathic examining board House bill 529 would tend to prevent the carrying of diseases through the sale of wearing apparel

Liquor Licenses Revoked—The district prohibition administrator with headquarters in Chicago has recently revoked the liquor licenses of the following for violation of the prohibition law and regulations

Dr Sherman A Askew, Peoria
Dr James A Cotton, Peoria
Dr Eugene G Covington Bloomington
Dr Harold Diefendorfer, Chicago
Dr William H Jamieson Ottawa
Dr Eugene A McQuillan, East St Louis.
Dr Charles H Minor, Chicago
Dr Edward W Moore, Chicago
Dr Percival Pearce, Waukegan

Personal.—Dr J F Roach has been appointed chief surgeon at the Zeigler Hospital, Zeigler, to succeed Dr Don B Stewart, resigned——Dr George W Haan has been appointed city health officer of Decatur to succeed Dr William S Keister——Dr Herman H Tuttle has been appointed health officer of Springfield to succeed Dr Raymond V Brokaw who recently resigned to accept a position as field representative of the American Society for the Control of Cancer with headquarters in New York——Dr Royal W Dunham has resigned as medical director of the Oak Forest Tuberculosis Sanatorium, Oak Forest, a Cook County institution, effective, June 1, and has accepted the medical superintendency of the Ottawa Tuberculosis Sanatorium, Ottawa——Dr and Mrs Ezra T Goble, Earlville, recently celebrated their golden wedding anniversary

Society News.—Dr Peter Bassoe clinical professor of neurology, Rush Medical College, Chicago, addressed the Sangamon County Medical Society, May 5, on "Diagnosis and Treatment of the Spinal Cord Lesions"——Drs Harry M Richter and Philip Lewin both of the faculty of Northwestern University Medical School, Chicago, addressed the Winnebago County Medical Society, May 3, on "The Goiter Situation" and "Mechanical Disturbances of the Foot," respectively——At the recent meeting of the Henry County Medical Society, Drs Philip H Kreuscher, clinical professor of orthopedic surgery, Loyola University School of Medicine, Chicago, and Dr John S Nagel, Chicago, gave addresses on "Backache, Its Cause and Treatment" and 'Some Diagnostic Points in Renal and Bladder Surgery,' respectively Dr Joseph E Westerlund, Cambridge, was elected president of the society

Chicago

Rush Alumni Clinics—Alumni of Rush Medical College and their friends are invited to attend special clinics during convocation week, June 13-18 Clinics in general medicine and surgery will be held in the morning and in the specialties in the afternoons The Rush Alumni Association will hold its annual meeting, June 14, 5 o'clock, at the Auditorium Hotel, followed by a banquet of the alumni and faculty at 6 30, tickets $2 Reservations may be made by addressing the registrar, James H Harper, 1758 West Harrison Street The new medical building at the University of Chicago, will be open for inspection, June 11 and June 13 Convocation exercises will be in Hutchinson Court, University Avenue and Fifty-Seventh Street, June 14, 3 30 p m

Chemists Honor Dr. Abel.—The Chicago section of the American Chemical Society gave a banquet at the University of Chicago, May 27, at which the Willard Gibbs medal was presented to Dr John J Abel, professor of pharmacology, Johns Hopkins University Medical Department This was the sixteenth award of the Willard Gibbs medal, the significance of which was explained by Paul Nicholas Leech, chairman of the Chicago section Julius Stieglitz, professor of chemistry at the University of Chicago, made the presentation Responses were made by George D Rosengarten, president of the American Chemical Society, Dr Leonard G Rowntree, Mayo Clinic, Rochester, Minn, Walter Dill Scott, president, Northwestern University, Dr William Allen Pusey, president, Chicago Institute of Medicine, Harrison E Howe editor, *Journal of Industrial and Engineering Chemistry*, and

Edward C. Elliott, Purdue University In the morning, Dr Abel addressed the society on "Chemistry in Relation to Biology and Medicine with Special Reference to Insulin and Other Hormones" One of the outstanding achievements of Dr Abel's many years of research was the isolation of epinephrine

Society News.—Dr Charles F Read addressed the Chicago Medical Society, May 25, on "Abnormal Behavior, Source Prevention and Treatment," and Dr Sumner L Koch on "Treatment of Contractures with Free Full Thickness Grafts and Pedunculated Flaps", the discussants were Drs Sydney Kuh and Francis Gerty, and Dr Allen B Kanavel, respectively The society announces the schedule of summer clinics at Chicago hospitals and since they are open to all physicians members are advised to register early, the fee is $10 ——Prof Henning Roenne, University of Copenhagen, was guest of honor of the Chicago Ophthalmological Society at a dinner, May 23——The Chicago Urological Society met, June 3, at 50 East Erie Street, the speakers were Dr Irving J Shapiro Dr Herman M Soloway and Dr Leslie L Veseen and their papers were candidates theses The other speakers were Drs Edwin F Hirsch and Budd C Corbus——The Chicago Society of Internal Medicine held its twelfth annual meeting May 23, at the City Club Among others, Dr Franklin C McLean spoke on "Pathologic Physiology of Edema" Dr Charles S Williamson was elected president, Dr Alexander A Goldsmith, vice president, and Dr Newell C Gilbert, secretary, reelected.

Report of Heart Association.—The Chicago Heart Association acknowledges assistance from various sources in its work of collecting and distributing facts regarding heart disease more than $6,000 was received during last year's seal sale and department stores, banks, railroads and the city have displayed posters Members of the board of the heart association during the last year gave many lectures to physicians meetings, clubs, students, nurses and dispensary assistants The association was instrumental in organizing a group of thirty young women for volunteer work in the cardiac clinics of Chicago, and a similar group to supervise the recreation and occupation of so called shut in cardiac children. It has also assisted in placing for a half day each week physicians in three special schools for crippled children where cardiac cases are committed The physicians of the Municipal Tuberculosis Sanitarium dispensaries also assist and supervise the cardiac cases The county commissioners have turned over about 285 beds at Camp Reinberg to the Chicago Heart Association for an outing for cardiac children Seventeen heart clinics and nine dispensaries cared for 8,499 persons during the year almost 46 per cent of whom were children, and 21 per cent of whom were new admissions Of the total number of patients (8,499) 12 per cent were intensive case problems; 29 per cent received advisory service and 59 per cent were given routine follow up service There were fifty-one physicians in the seventeen weekly heart clinics, and the hours served by them totaled 5 025

INDIANA

License Revoked.—The license of Dr Ezra H Pleak, Evansville, has been revoked by the state board of medical registration and examination, it is reported, following his recent conviction on a charge of performing an illegal operation

University News.—The board of trustees of the University of Indiana, May 2, approved plans for the Ball Nurses Home and Training School, Indianapolis, to be erected at a cost of $500,000 The construction of a $100,000 wing to the medical school, to be paid for from proceeds of the sale of the old medical school building downtown, was also announced

Personal.—Dr. Cavins R Marshall, Indianapolis, has been appointed a member of the state board of health to succeed Dr Thomas B Victor Keene, Dr John H Green, North Vernon, has been reappointed president of the board——Dr. James DeWitt George has been appointed chief resident physician and head of the intern staff of the William H Coleman Hospital for Women, Indianapolis.

KANSAS

Society News—At a joint meeting of the Neosho-Allen County Medical Associations, Dr Lewis D Johnson, Chanute, was elected president of the reorganized Third District Medical Association, and Dr Paul S Mitchell, Iola, secretary-treasurer

Board of Health Car Idle.—The Pullman Company presented to the Kansas State Board of Health a Pullman car to be used for health demonstrations and exhibits, and the transportation of lecturers throughout the state The car was so used for a time, now, the Topeka *Capital* says, it stands idle in the state fair grounds, the legislature having refused in 1925 and 1927 to appropriate funds for this work Although idle, the car costs the state board a small monthly rental for space on the Santa Fe spur.

LOUISIANA

Society News.—The May 9 meeting of the Orleans Parish Medical Society, New Orleans, was addressed by Dr. Ludo von Meysenbug on "The Banana as a Food for Infants and Children", Dr Edmund McC Connely on "Chronic Barbital Poisoning," and by Dr. Adolph Henriques on "The Reduction of High Blood Pressure by a New Method"

Health at New Orleans.—Telegraphic reports to the U S Department of Commerce from sixty-seven cities with a total population of about 30 million, for the week ending May 14, indicates that the highest mortality rate (20 8) was for New Orleans, and that the mortality rate for the group of cities as a whole was 12 9 The rate for New Orleans for the corresponding week last year was 16 8, and for the group of cities, 13 2

Summer Courses at Tulane.—During this summer Tulane University of Louisiana School of Medicine, New Orleans, will offer courses in anatomy, embryology, histology, neuroanatomy, dissection, biochemistry, physiology and medicine, each requiring the same number of lecture hours, laboratory and clinical work, and the same standard of presentation as is required during the regular school year The courses may be taken to remove "conditions" or for advanced credit Students from other schools to be eligible for admission must present a letter from their dean authorizing their enrolment The registration fee is $5, and the right is reserved not to give any course if the number of applicants is considered insufficient Further information will be given by the dean, Dr Charles C Bass, 1551 Canal Street, New Orleans.

MARYLAND

State Medical Election.—At the one hundred and twenty-ninth annual meeting of the Medical and Chirurgical Faculty of Maryland, April 28, Dr Peregrine Wroth, Jr, Hagerstown, was elected president-elect, and Dr John King, Baltimore, secretary

University News.—Dr Hans Brunner, University of Vienna, gave the last of a series of lectures on otoneurology at the University of Maryland, April 8, the course was given under the auspices of the Extension Committee of the Alumni Association of the School of Medicine.

Dr Thayer Honored.—At the Washington session of the American Medical Association, members subscribed a fund of $16,000 to be presented to Johns Hopkins University, Baltimore, for a scholarship named in honor of Dr William S Thayer, professor emeritus of medicine and President-Elect of the American Medical Association

Scarlet Fever Closes School.—The Wayside School, Hagerstown, was ordered closed recently, it is reported, on account of an outbreak of about eight cases of scarlet fever among the students The retiring health officer, Dr Henry R Kritzer, and the incoming health officer, Dr Perry F Prather, were considering the advisability of closing the Broadway school where several cases of scarlet fever had also been reported

Lectures — The Rate of Living.—Raymond Pearl, Ph D, director, Institute of Biologic Research, Johns Hopkins University Medical Department, Baltimore, sailed for London, May 25, to give a series of lectures at the University of London Dr Pearl will speak also at Geneva at the world population conference and at Berlin at the International Genetics Conference, his lectures will be published in the fall in book form under the title "The Rate of Living"

Personal—Dr Hyman M Cohen, formerly of Baltimore, now of Manchester, England, was a delegate of the British Medical Association to the Washington session of the American Medical Association——Dr Timothy A Callahan has been appointed health officer for Harvard County succeeding Dr Walter B Kirk of Darlington——Dr Edwin J. Ward, Crisfield, has been appointed county health officer to succeed Dr Clarence E. Collins, and will take up his duties next

January.——Dr. William H. Welch will leave shortly to study methods of teaching the history of medicine in various European universities.

Baltimore's Ambulance Plans Halted.—The plans for the establishment of a city ambulance service under the control of the fire department of Baltimore, announced in The Journal, May 21, page 1648, have been held up as a result of a meeting of the joint ambulance committee of the Baltimore City Medical Society, the West Baltimore Medical Society, the Baltimore Association of Commerce and the Baltimore Safety Council. The fire board has been instructed by the mayor of Baltimore to suspend until further orders the installation of the municipal ambulance system under its control. The joint committees ask that the ambulance system be turned over to hospitals in Baltimore, under the control of the supervisors of city charities.

Johns Hopkins Medical School Adopts Quarter System.—A new curriculum will become effective in part next year and in full the following year at Johns Hopkins University Medical Department, arranged on the basis of four quarters of eight weeks each for the academic year. Required work will be confined to a minimum in each major department, with an aggregate of 2,600 hours of instruction in the required courses, leaving about half the student's time for courses of his own selection. Term examinations will be discontinued next fall and group examinations substituted. Examinations in the preclinical studies will be held at the end of the second year and in the clinical subjects at the end of the fourth year; they will be along more comprehensive lines than the present detailed type of examinations.

Physicians Detailed to Flood Area.—On request of Dr. John McMullen, U. S. Public Health Service, now at Memphis, the following Baltimore physicians, connected with the state and city health departments, and Dr. James A. Doull, associate professor of epidemiology, Johns Hopkins University School of Hygiene and Public Health, arrived in Memphis, May 24, to assist in the flood area for the next month:

Dr. W. C. Stone, state health officer.
Dr. Victor H. de Somoskeoy, state health officer.
Dr. Valcoulon Ellicott, epidemiologist, Baltimore City Health Department.
Dr. Ralph G. Beachley, state health officer.
Dr. John Collinson, assistant director, state bureau of communicable diseases.

According to previous arrangement, the state will pay the salaries of the state officer, the city will pay Dr. Ellicott and Johns Hopkins University Medical Department will pay Dr. Doull.

MICHIGAN

Smallpox Outbreak.—There were about fifteen cases of smallpox in the vicinity of Dowagaic, May 14, it is reported, and an almost equal number of cases had already recovered from a mild form of the disease. Vaccination was performed on about 887 persons in order to prevent the further spread of smallpox.

Society News.—Dr. George Van Amber Brown has been made president-elect of the Wayne County Medical Society, Detroit; Dr. Henry R. Carstens, vice president, and Dr. William P. Woodworth, secretary.——The May meeting of the Calhoun County Medical Society, Battle Creek, was attended by about twenty physicians from Detroit who had attended that day a branch meeting of the American Urological Society; Dr. William E. Keane read a paper on "Bladder Injuries"; Dr. Robert E. Cumming, "Regional Anesthesia in Urology"; Dr. John K. Ormond, "Urology in Children"; Dr. Frederick H. Cole, "Stricture of Urether," and Dr. Leroy W. Hull, "Bladder Neck Obstructions"; the wives of the members organized a woman's auxiliary at this time, Dr. Nettie A. E. Knapp, Battle Creek, being elected president.

MISSOURI

Personal.—Mrs. Willard Bartlett, St. Louis, was made president-elect of the Woman's Auxiliary of the Missouri State Medical Association at the recent annual meeting; Mrs. Wallace M. Bickford, Marshall, was installed as president.

University News.—The General Education Board, New York, has given $50,000 to Washington University School of Medicine, St. Louis, to assist in the work of the chest clinic under the directorship of Drs. Evarts A. Graham and Jacob J. Singer.

Hospital News.—The St. Louis Medical Society has voted in favor of erecting the proposed $1,200,000 hospital for negroes on a site adjoining the main city hospital and for conducting the two institutions under the same general management; it is reported that the negro population favors the erection of the hospital in the negro district of the city. Funds for the negro hospital were provided by a bond issue in 1923.

NEW HAMPSHIRE

Dr. Bowler Appointed Dean at Dartmouth.—The board of trustees of Dartmouth College, April 29, elected Dr. John P. Bowler dean of Dartmouth Medical School to succeed Dr. John M. Gile, who died in 1925. Dr. Bowler, a native of Massachusetts, is a graduate of Dartmouth College and the Medical School of Harvard University. He was formerly associated with the Mayo Clinic, Rochester, Minn., and in 1925 received the degree of M.Sc. in surgery from the University of Minnesota. He then returned to Hanover to engage in the practice of medicine and to teach at Dartmouth Medical School.

NEW JERSEY

Dr. Martland Honored.—A testimonial dinner was given at the Krueger Auditorium, Newark, May 10, in honor of Dr. Harrison S. Martland, recently appointed chief medical examiner of Essex County. Dr. Martland is a native of Newark, and for about two years he has been county physician. Among the speakers were Dr. Sanford Ferris, president, Essex County Medical Society; Judge Van Riper, the Right Rev. John C. Duffy, Jersey City, and State Senator J. Henry Harrison. A fluoroscope valued at several hundred dollars was presented to the guest of honor.

NEW YORK

Society News.—Dr. Ashley B. Morrill, Bronxville, has been elected president of the Yonkers Practitioners' Club.——Dr. Abraham J. Rongy, New York, addressed the Academy of Medicine of Buffalo, May 18, on "Ovarian Dysfunction."

Personal.—Dr. Hugh S. Gregory, pathologist, Binghamton State Hospital, recently resigned to accept the position of physician-in-charge of Steuben Sanatorium, Hornell.——Dr. T. Edwin O'Brien has been appointed city health officer of Lockport.——Dr. Eric K. Clarke has been appointed assistant professor of medicine and director of the department of psychiatry at the University of Rochester School of Medicine and Dentistry; Dr. Clarke recently completed a fellowship in extramural psychiatry with the National Committee for Mental Hygiene.

Overcrowding in Hospitals for Insane.—The overcrowding in the state hospitals for the insane, March 1, was 30 per cent, the highest on record, says the state department of mental hygiene. Construction work under way at these hospitals is expected to provide 2,633 additional beds before the end of the year. The increase at the Brooklyn State Hospital will be 47 beds; at the Creedmoor Division, 1,000 beds; Central Islip Hospital, 36 beds; Harlem Valley Hospital, 1,240 beds, and Kings Park State Hospital, 310 beds. During February, 277 patients were discharged from the state hospitals and 311 died; there were 657 first admissions and 136 readmissions, leaving a net increase of 295 for the month.

NORTH CAROLINA

Society News.—Dr. John H. Hamilton, Wilmington, has been elected president of the North Carolina Public Health Association, and Dr. Frank M. Register, Raleigh, secretary-treasurer, reelected.——Dr. Arthur T. Pritchard, Asheville, was recently elected president of the Southern Railway Surgeon's Association.

Personal.—Dr. Thomas W. M. Long has been elected president of the First National Bank of Roanoke Rapids. Dr. Long is a member of the state board of medical examiners.——Dr. Joseph Howell Way, president, state board of health, has been made a member of the Alpha Omega Alpha Medical Fraternity at Vanderbilt University as a representative of the class of 1886.

Dr. Carroll's License Restored—Board Pays Cost.—An appeal to the superior court of Buncombe County in the case of Dr. Robert S. Carroll, whose license to practice medicine was revoked by the state board of medical examiners, July 20, 1926, resulted in the court rescinding the order of the state board and allowing Dr. Carroll to retain his license in full force and effect. The court further ordered that the state board of medical examiners pay the cost of this proceeding to be taxed by the clerk.

Dr. McNeill Honored—Dr J W McNeill, Fayetteville was guest of honor at a dinner tendered to Cumberland County physicians by Dr James D C Highsmith, May 3, to celebrate Dr McNeill's fiftieth anniversary in the practice of medicine Dr Clyde C Philips Charlotte read a paper on X-Ray," and Dr William E Fitch, Buffalo Lithia Springs, Va on Mineral Waters of the Carolinas and Virginia" A loving cup was presented to Dr McNeill by physicians of the community as a token of esteem

Funds for Charitable Institutions—The legislature has appropriated $1 500 000 for improvements to the state charitable institutions, about $350 000 being for a new wing to the state hospital for the insane at Raleigh replacing the wing burned some months ago, other institutions receiving funds are the insane hospital for negroes at Goldsboro $170 000 for a new building the state orthopedic hospital at Gastonia $105 000 for a central heating plant servant quarters and surgeon s residence The school for the deaf at Morgantown receives $80 000, and the state school for the blind at Raleigh $250 000

Full-Time Teachers for New School of Medicine—At the annual meeting of the North Carolina State Medical Society Dr Wilburt C Davison, Baltimore, outlined plans for the proposed Duke University School of Medicine at Durham Dr Davison was recently appointed dean of the new school of medicine It is planned he said, to limit the classes to fifty, and arrange the curriculum so that, with proper preparatory education the course leading to a degree in medicine should be completed in three years The teaching and hospital staff will be full time instructors amply compensated for their services Construction will begin soon on a 350 bed hospital, and the school of medicine is expected to open in 1929 A number of physicians are now under observation by the board of trustees for positions on the faculty

OHIO

Society News—Dr George S Bond, associate professor of medicine, Indiana University School of Medicine, addressed the Academy of Medicine of Dayton, April 29 on "The Thyroid Gland from the Standpoint of an Internist" Other speakers were Drs Martin B Tinker, Ithaca, N Y, and Andre Crotti, Columbus

Cleveland's Medical Center Assured —The campaign to raise $6 000 000 for the medical center in Cleveland, announced in The Journal March 26 ended May 20 with contributions of $6 534 355 Additional gifts for projects not included in the campaign brought the total contributions up to more than $8 000 000 it is reported Among the large gifts not previously announced in The Journal was that of $1,000 000 by Edward S Harkness, New York

OKLAHOMA

Society News—At the Wood County Medical Society meeting March 9 Drs Leander A Riely, Oklahoma City, spoke on 'Diabetes, and Dr Sylvester N Mayberry, Enid, "Management of Tuberculosis in the West"——Col Matthew A DeLaney, Medical Corps, U S Army, Fort Sill, addressed the Comanche County Medical Society at Lawton, April 28, on 'Preventive Medicine and Sanitation"

State Medical Meeting—The thirty-fifth annual meeting of the Oklahoma State Medical Association was held at Muskogee May 4 6, under the presidency of Dr Arthur S Risser, Blackwell, there were clinical meetings at the Oklahoma Baptist and the U S Veterans' hospitals the first two days at 8 a m The president s reception and dance was Thursday evening The Muskogee County Medical Society acted as hosts, with Dr John Hutchings White, Muskogee, general chairman Dr John O McReynolds, Dallas, Texas, vice president of the American Medical Association, addressed the general evening meeting May 4, also Dr Oliver O Hammonds, Okmulgee, state commissioner of health, and Dr Joseph S Fulton, Otoka, president-elect of the state medical association Among the many speakers before the scientific sections were Dr Nelse F Ockerblad, Kansas City, whose subject was "The Problem of Ureteral and Kidney Stone' , Dr Herbert Moulton, Fort Smith, Ark, "Experiences with Operative Treatment of Cataracts", Dr Lawrence D Thompson, St Louis, "Present Status of the Knowledge of Etiology and Treatment of Pernicious Anemia' , Dr Wayne A. Rupe, St Louis, 'Infant Feeding with Acidified Milk, and Dr Millard F Arbuckle, St Louis, "Ear, Nose and Throat Problems of the Pediatrician"

PENNSYLVANIA

Hospital News—Governor Fisher approved, May 8, appropriations for the state-aided medical and surgical hospitals of $5,197,300, which was considerably less than the amount passed by the legislature for these institutions, but much more than that received two years ago

Society News—Dr Samuel B English, director, New Jersey State Sanatorium for Tubercular Diseases, addressed the Northampton County Medical Society, Bethlehem, May 20, on "Tuberculosis"——Dr. Curtis C Mechling, Pittsburgh, addressed the Erie County Medical Society, May 3, on 'Diagnosis of Acute Proctologic Diseases," illustrated with lantern slides

Health Department Items — The secretary of the state health department announces that a section of industrial waste has been created in the department which will make sanitary engineering surveys of streams and inspections of industrial waste disposal, and will report on methods for the treatment and disposal of industrial waste, F E Daniels has been appointed chief of the new section The tuberculosis extension clinics carried on by means of the motorized unit will work in Huntingdon, Blair and Lycoming counties, the physicians have cooperated with the department in this *work, in many cases bringing the patients to the laboratory* car for examination, the patients are then referred back to the family physician for treatment. The school nurses forward for examination children who are 15 per cent or more underweight, and since the majority of these are institutional cases they are sent either to Mont Alto or to Cresson for treatment.

Increase in Workmen's Accidents—The state bureau of workmen's compensation reports that there was an increase of 2 3 per cent in the number of accidents in Pennsylvania during 1926 over the preceding year The total number of accidents was 180,420 There were 2,136 fatal accidents, the greatest number from any one cause (484) being from anthracite mining The bureau's summary of the operation of the law during the last eleven years shows that the average annual number of deaths was 2,469, and the average annual nonfatal cases 181,198 The employers and their authorized insurance carriers incurred during this period a total liability of $121,655,455 due to accidents The average award for death in the eleven years was $3,390 There were 6 245 eyes lost with an average compensation per case of $1,422, 2,573 hands with an average compensation of $1,840, 821 arms lost, average compensation, $2 223, legs lost totaled 1 078, average compensation, $2 250 and feet lost totaled 1,505 with an average compensation of $1,691.

Philadelphia

Cholera—An Old Diary.—When cholera broke out along the Atlantic seaboard in 1832, Joseph Sill, merchant and eminent citizen of Philadelphia, kept a diary According to the *Evening Bulletin* he wrote, August 3, 1832

> It seems impossible to record any other matter than cholera, it engrosses a great portion of our attention and unfits the mind for the contemplation of other subjects, it is in every one s mouth, the first remark to a friend or stranger after the customary salutation, and the last topic after every other subject has been exhausted its influence is seen in the serious countenance that meets you in the Street, and the passing breeze brings with it the hasty inquiry of 'how many Cases are there ? After a lapse of 8 days we have only reported 35 cases & 14 deaths a number I believe not much greater than often happened during the same season of the Year, when the fruits are eaten in an unripe state and the heat of the Weather predisposes the community to disease After having said thus much on the subject I will endeavor to avoid it in the future, only stating briefly the number of cases & deaths that daily occur here and N York
>
> The cases reported here to day (Aug 5, 1832) have been 65 deaths 25 The cases reported in N York yesterday have been 88, deaths 30 I had a Gentleman from N York (Mr Wm Vandervoort) to dine with me to day, who gave a very gloomy account of the state of things in N York from the effects of the pestilence, he described it as the abode of melancholy, distress and bankruptcy, and as nearly deserted
>
> The report of Cholera here to day (August 7) is 136 cases—73 deaths. The report of Cholera in N York yesterday is 101 cases—37 deaths

SOUTH CAROLINA

Personal—Dr Nathaniel B Heyward, Columbia, has been appointed a member of the state board of medical examiners, succeeding Dr Julius H Taylor, Columbia, Dr Robert E Abell, Chester, was reappointed a member of the board

Society News — Dr J S Allen, Chester, was elected president of the Palmetto Medical Association at the thirty-second annual meeting April 26, at Columbia The next annual meeting will be at Florence This association is composed of the negro physicians, dentists and pharmacists of the state

TENNESSEE

State Journal Has a Full-Time Assistant Editor.—The secretary of the Tennessee State Medical Association, Dr. Harry H. Shoulders, writes that Dr. William M. Hardy has been appointed a full-time assistant secretary-editor. Dr. Hardy graduated from the University of Tennessee in 1910 and for sixteen years has been a medical missionary in China. The report in The Journal of the election of Dr. Shoulders as full-time secretary-editor was erroneous, Dr. Shoulders is on part-time duty.

Society News.—Dr. William C. Duckworth, Jackson, was elected president of the West Tennessee Medical and Surgical Association at the thirty-sixth annual meeting, Dyersburg, May 12, and Dr. Isaac A. McSwain, Paris, secretary, reelected. The next annual meeting will be at Jackson.——The East Tennessee Medical Association elected Dr. Harry D. Miller, Johnson City, president for the ensuing year at its annual meeting in Johnson City, May 13, and Dr. Jesse C. Hill, Knoxville, secretary-treasurer, reelected. —— Dr. Evander M. Sanders, Nashville, was elected president of the Middle Tennessee Medical Association at the meeting in Pulaski, May 6, and Dr. Sam P. Bailey, Nashville, secretary-treasurer. The next meeting will be at McMinnville.

Personal.—Dr. Edgar A. Patton has resigned as medical *director of the tuberculosis sanatorium at Pressmen* Home to accept a similar position at Beverly Hills, Knoxville, and Dr. James S. Lyons, Rogersville, has accepted the position at Pressmen Home.——Dr. Hiram B. Everett, Memphis, was elected chairman of the Tennessee State Association of Railway Surgeons at the annual meeting, Chattanooga, April 11.——Dr. Eldon D. Connell has resigned his position as school medical officer in the city health department, Memphis.——Dr. Roger B. Burrus has been appointed resident physician at the Nashville General Hospital, Nashville.——Dr. Owen F. Agee has been appointed to a position with the Dyer health unit.

TEXAS

Personal.—Dr. Reuben B. Anderson, Jr., has been appointed assistant secretary-editor of the State Medical Association of Texas; Dr. Anderson for several years was in the medical corps of the navy.——Dr. Richard H. Harrison, Bryan, has been appointed county health officer of Brazos County.

Chiropractor Loses Appeal.—H. Gordon Hargett, a chiropractor who was recently found guilty in Tarrant County of violating the medical practice act, appealed to the court of criminal appeals at Austin, April 6, which court confirmed the verdict of the lower court. The trial court assessed a fine of $50 and one hour in jail.

Hospital News.—The chamber of commerce of Stephenville has donated a site for a hospital which will cost about $25,000; it will be ready for occupancy about August 1.——All Saint's Hospital, Fort Worth, dedicated a new addition, February 8.——The Kings Daughters' Hospital, Waco, has let the contract for a three story brick and concrete building, to be erected at Twentieth Street and Avenue C at a cost of about $105,000.

Society News. — Dr. Rex E. Van Duzen addressed the Dallas County Medical Society, April 14, on "Significance of Blood in the Urine."——Dr. William R. Snow, Abilene, addressed the Brown County Medical Society, Brownwood, April 12, on "Feeding the Normal Infant."——Dr. James W. Powers, Wichita Falls, addressed the Wichita County Medical Society, April 12, on "Birth Injuries Resulting in Intracranial Hemorrhage." —— Dr. John Potts, Fort Worth, conducted a tuberculosis clinic before the Panhandle District Medical Society, April 11, and gave a public address on tuberculosis in the evening; Dr. William L. Baugh, Lubbock, was elected president of the society at this meeting.

WASHINGTON

Sanipractors Want Fees Returned.—One of the late developments in connection with the defunct American University of Sanipractic in Seattle is an attempt through the courts for a rebate on the fees paid when the "doctors" attended this institution. This diploma mill lost its charter by action of the court, and a law was enacted providing a means whereby the licenses of nearly 100 sanipractors who had attended the school could be revoked.

Personal.—Dr. John S. Newcomb, since 1919 surgeon at the veterans' home at Retsil, has resigned to take up again his position as surgeon on the Blue Funnel line sailing to the Orient.——Dr. Henry Storgaard, Yakima, has been appointed a deputy state health officer.——Dr. Harry V. Wurdemann, colonel, medical reserve corps, Seattle, has been ordered to active duty during the month of June in the intelligence section of the general staff of the army, Washington, D. C.

Hospital News.—A meeting of about 800 persons, physicians, public health workers and others interested, was held in Seattle, May 7, to consider the building of a city-county hospital for Seattle and King County. The present King County and Emergency city hospitals are considered inadequate; it was recommended at the meeting that a bond issue of $5,000,000 be provided for a modern institution for the care of the sick poor.——Dr. Frank R. Fursey has been elected president of the staff of the Deaconess Hospital, Spokane.

Society News.—Dr. George C. Miller addressed the King County Medical Society, Seattle, March 14, on "Significance of Lymphocytosis."——Dr. Lester J. Palmer, Seattle, addressed the Pierce County Medical Society, recently, on "The Problem of Diabetic Children," and Dr. James Tate Mason, Seattle, on "End-Results of Surgical Treatment of Peptic Ulcer."——Dr. Henry J. Gerstenberger, professor of pediatrics, Western Reserve University School of Medicine, Cleveland, addressed the Seattle Society, April 22, on "The Etiology of Rickets."——Dr. Howard L. Hull, Elma, addressed the Pierce County Medical Society, April 12, on "Tuberculosis from the Standpoint of Roentgen-Ray Diagnosis," illustrated.——The Snohomish County Medical Society held a symposium, May 3, Everett, on internal secretions, the speakers being Drs. Leon G. Woodford, Percy P. Cooley, Monroe, and William V. Fulton; Dr. Charles F. Eikenbary, Seattle, addressed the society, May 13.——Among others, Dr. Leon L. Goodnow, Aberdeen, medical director, state industrial insurance commission, addressed the Pierce County Medical Society, Tacoma, May 10, on "End-Results in Industrial Injuries"; Dr. John M. Blackford, Seattle, addressed the society, April 26, on "Clinical Value of Electrocardiography." Dr. Ernest C. Wheeler, Tacoma, was elected president of the society at this meeting.

WISCONSIN

Society News.—Dr. Morris Fishbein, Chicago, gave a public lecture at the fifth annual Students' Day of the University of Wisconsin Medical Society, May 26, on "Fads and Quackery in Medicine."——Dr. Edward Blumer, Monticello, was elected president of the Green County Medical Society, April 26.

Dr. Pohle Appointed Professor of Radiology.—Dr. Ernest A. Pohle, assistant professor of radiology, University of Michigan Medical School, Ann Arbor, has been appointed professor of radiology at the University of Wisconsin. Dr. Pohle, who graduated from the University of Frankfort-on-the-Main, was for a time in charge of the roentgen-ray deep therapy department of Mount Sinai Hospital, Cleveland, from where he was appointed assistant professor at the University of Michigan. Edward Witzemann, Mayo Clinic, Rochester, Minn., has been appointed professor of physiologic chemistry at the University of Wisconsin. The announcement of these appointments in The Journal, May 28, page 1738, was erroneous.

GENERAL

Courses in Social Hygiene.—The course in social hygiene given, July 11-22, at Columbia University, New York, will be open to physicians, nurses and other health workers; it will embrace the subjects concerned in a well rounded social hygiene program, and will include visits to health centers, courts and Ellis Island for demonstrations. —— A social hygiene institute will be conducted at Chautauqua Assembly, July 5-August 12. —— The Pennsylvania School of Social Work in Philadelphia will conduct a social hygiene institute, beginning July 12.

Plans to Replenish Medicinal Whisky Supply.—Assistant Secretary of the Treasury Andrews announced, May 23, that authority will be granted to four or five corporations to distil medicinal whisky for the purpose of replenishing the existing supply. The problem of replenishing has been under consideration by the Treasury Department for months, and this announcement was made after a conference in New York with several groups owning distillery properties. The details of carrying the plans into effect will be announced; it is contemplated now to manufacture about 3,000,000 gallons annually.

The Government Needs a Toxicologist.—The U. S. Civil Service Commission announces that applications will be received for the position of toxicologist until July 2, to fill a vacancy in the chemical warfare service, Edgewood Arsenal, Edgewood, Md, at a salary ranging from $3,800 to $5,000 The duties will be experimental work on the physiologic action of toxic compounds Vacancies may occur in other positions requiring similar qualifications at either higher or lower salaries Applicants will not be required to report for examination at any place but will be rated on their education, training and experience Application blanks may be obtained from the secretary, Fourth U S Civil Service District, 1723 F Street, N W, Washington, D C

More Counties Free of Bovine Tuberculosis—The bureau of animal industry, U S Department of Agriculture, announces that four more counties and several parts of counties have been added to the extensive area already freed from bovine tuberculosis The new counties are Knox in Indiana, Hartnett in North Carolina, Lawrence in Pennsylvania and Shelby in Tennessee, and parts of three counties in the state of Vermont The bureau of animal industry has also reaccredited for three years following the completion of the necessary tests, Stanly and Stokes counties in North Carolina and Ohio County in Indiana The number of counties in the United States in the modified accredited lists is now 306 To attain this recognition, the cattle of a county must be tested for tuberculosis by a state or federal veterinarian and the result must show not more than 0 5 per cent of the animals reactors

Award of Fellowships in Medicine.—The Medical Fellowship Board of the National Research Council awarded the following fellowships in medicine, April 30 The person with whom each fellow will study and the university to be attended is indicated as reported by the council Some of these appointments will not become effective until the fellow receives his degree this year The fellowships now offered by the board are primarily for training in research Applications should be filed on or before August 1 for fellowships to be considered at the September meeting of the board Address the secretary of the medical fellowship board, Mrs Ruby W Nipps, B and Twenty-First streets, Washington D C

Walter Bauer, M D, Mich '23 London Dale Internal Medicine
Detlev W Bronk A B M S Ph D Mich 26 Cambridge, Adrian, Physiology
* Arda A Green A B M D Johns Hopkins 27, not determined, Biochemistry
* Haldan K Hartline B S M D Johns Hopkins, '27, Johns Hopkins Pfund and Wood Physiology
Thomas D Jones A B M D Va, '23 University College, London Lewis Internal Medicine
John F Kessel A B M A, Ph D, Calif '23 Johns Hopkins Cort and Hegner, Parasitology
Robert M Moore M D, Washington University, '26, Harvard Cannon Physiology
* Paul W O Preisler B S M S, Ph D Washington University, '27, U S Hygienic Laboratory William M Clark Biochemistry
* Francis O Schmitt A B Ph D, Washington University, 27, University of California G N Lewis Physiology
* Vincent duVigneaud, B S, Ph D Rochester, '27, Johns Hopkins Abel Biochemistry
Lester R Whitaker, M D Harvard, '23 Harvard, Cushing Surgery
* Fellowship will not become effective until degree is conferred

Resolutions by Health Officers on Relief and Typhoid.—At the annual conferences of state and territorial health officers, Washington, D C, May 20, a resolution was adopted recommending that the health departments of all states be requested to report to the surgeon general, U S Public Health Service, such sanitary and biologic supplies as are available, and all available personnel who can be furnished for flood relief work in the Mississippi Valley, also that the U S Public Health Service formulate a definite plan of assignment and replacement, calling on the several states for personnel as required Many states have already sent part of their personnel to the flooded areas to assist in relief Another resolution passed at the conference concerned the typhoid epidemic in Montreal, stating in part "that this conference taking cognizance of the alarming epidemic of typhoid fever in Montreal, which has continued so long as to indicate ineffective public health measures for its prevention, advises organizations contemplating sessions in Montreal and tourists expecting to visit that city, that they should be inoculated against typhoid fever if, considering the danger involved, it is absolutely necessary to include Montreal in their itineraries" The surgeon general's office addressed a letter to state health officers, April 30, calling attention to the fact that many persons from Montreal will visit the United States during the summer, some seeking employment at hotels, camps and summer resorts as food handlers Health officers were advised to exercise unusual care with regard to the examination of food handlers, resort owners and others and to maintain and establish sanitary conditions on a high plane throughout the season, in order to prevent an outbreak of typhoid

Research by American Otological Society.—The board of trustees of the Research Fund of the American Otological Society, Inc, announces the completion of its first year's activity The central bureau is now located in a permanent office in the New York Academy of Medicine, Fifth Avenue and One Hundred and Third Street The primary object of the research is an intensive, correlated study of chronic progressive deafness and otosclerosis, and subsequently other problems in otolaryngology To this end a permanent endowment fund known as the Research Fund of the American Otological Society, Inc, is being raised

The Carnegie Corporation donated $90,000 for this research to be distributed over five years, the expenditure of which will be under the direction of the scientific committee appointed by the society and the lay advisers of the board, who are Starling W Childs, George E Coleman, William J. Curtis and J DuPratt White The board of trustees of the research fund—Dr Arthur B Duel, Gen Herbert S Birkett, Dr Eugene A Crockett, Dr Edward B Dench, Dr. James F McKernon, Dr Norval H Pierce and Dr J Gordon Wilson—hopes to be able to raise a permanent fund of at least $560 000, the income of which shall be devoted to research It is the intention of the board of trustees to utilize the interest on such sums as are collected for the permanent fund to augment the budget provided by the Carnegie Corporation for this research until the permanent fund is completed More than $100,000 has already been subscribed to the permanent fund

Among the projects now being conducted under the direction of the scientific committee are the following:

1 Review and translation of literature on otosclerosis. When completed this will be published and sold at cost

2 Investigation of the anatomy of the osseous capsule of the labyrinth, including the study of animal material in connection with nutritional disease

3 Investigation of experimental metabolism

4 Investigation of the development of the bony capsule of the internal ear

5 Investigation of the experimental production of the pathologic changes of otosclerosis

6 Collection of autopsy material in several centers

To insure the success of the project, the committee enlists the interest of the whole medical profession as well as of the lay public It considers the problem of this research second to none in importance to the profession and to the world at large, and physicians are urged to do their part in this work by assisting in the financing and in other ways and by stimulating others to join in the movement The money received will be used for the prosecution of both laboratory and technical work and for the maintenance of the bureau of statistics, which will assist in avoiding needless repetition of work Subscribers to the fund will receive from the central bureau all important bulletins and communications published Contributions should be sent to the American Otological Society Research Fund, William J Curtis, treasurer, New York Academy of Medicine, Fifth Avenue and One Hundred and Third Street, New York City

FOREIGN

Spanish Journal Offers Prizes—*Ars Medica* of Barcelona, Spain, offers the Ars Medica Prize of 2 000 pesetas (about $350) and the Ruiz Arnau Prize of 500 pesetas (about $90) which are open to physicians of all countries with the limitation that the papers must be written in the Spanish language. Work of frank therapeutic value will receive special attention Address Ars Medica, Balmes, 152, Barcelona, Spain

Personal—Sir John Rose Bradford was reelected president of the Royal College of Physicians of London at the recent annual meeting——Dr. Akira Fujinami of the faculty of the Kyoto Imperial University Medical School is soon to leave for Brazil, South America, to study sanitary conditions as an exchange professor of the League of Nations ——Charles H Usher, lecturer in ophthalmology, Medical School of the University of Aberdeen, has been awarded the Nettleship Prize by the Royal Ophthalmological Society of the United Kingdom, the prize is awarded every three years from funds given by the late Dr Nettleship, surgeon to the Royal London Ophthalmic Hospital

Lister Centennial at British Medical Meeting—During the annual meeting in Edinburgh of the British Medical Association beginning July 15, relics of Lord Lister will be on view at the upper library of the old university The relics, gathered from many sources, have been arranged largely through the liberality of the Wellcome Historical Medical Museum of England. A Lister Memorial Volume will constitute the book of the annual meeting, a copy being presented to each member on registration. Memorial inscriptions have been placed on the walls of the houses which Lister occupied in Edinburgh at 11 Rutland Street and 9 Charlotte Square. The prize of £25 and a gold medal for the best essay on the influence of Lister on surgery will be awarded at the public meeting, July 20, in McEwan Hall. The Earl of Balfour will preside at this meeting; among the speakers will be Dr. Harvey Cushing, professor of surgery, Harvard University Medical School, Boston, and Dr. John Stewart, dean and professor of surgery, Dalhousie University Faculty of Medicine, Halifax, N. S.,

New School of Pathology at Oxford.—In the presence of a distinguished company, ceremonies were held, March 11, to open the Sir William Dunn School of Pathology at Oxford University, England; owing to attacks of influenza, the lord chancellor and the senior member of the Dunn trustees were unable to attend. Heads of houses and other senior members of the university attended, including Sir Archibald Garrod; Sir Charles S. Sherrington; Sir Humphrey D. Rolleston; Sir Frederick Andrewes; Sir Frederick G. Hopkins; Sir Walter M. Fletcher, secretary, medical research council; Dr. Andrew Balfour, director, London School of Hygiene and Tropical Medicine; Professors Moellgaard and Holst, representing the Scandinavian universities, and Lady Osler. The new school, erected at a cost of about £100,000, is under the direction of Prof. Georges Dreyer, who has held the chair of pathology of Oxford for many years. The building, the *British Medical Journal* states, accommodates twice as many students and research workers as the old laboratory, and has every advantage that modern equipment can provide. It has three floors and a basement; the west wing is for class rooms, library and a museum, and the east wing is for research. After the ceremony, the guests inspected the institution and took tea in the large laboratory above the lecture room.

Deaths in Other Countries

Ernst Starling, for many years professor of physiology at the University of London, England, author of a textbook on physiology; noted for research in association with Sir William Bayliss; the recipient of many honors by scientific bodies. Professor Starling recently gave the Herter lectures in New York.

Government Services

Army Personals

Col. Percy M. Ashburn and Major A. Canning have been ordered to Washington, D. C.; Col. M. A. W. Shockley has been ordered to West Point, and Lieut. Col. Reuben B. Miller to El Paso, Texas.——Major Daniel W. Harmon has been ordered to Washington, D. C., and Major William R. Dear to Philadelphia.——Major Robert Skelton has been ordered to Brooklyn.

Examination for Admission to Army Medical Corps

An examination will be held, July 11-15, to determine the qualifications of applicants for commission in the Army Medical Corps. Applicants must be male citizens of the United States, between 22½ and 31½ years of age, graduates of acceptable medical schools and must have had one year's hospital training. Physicians enter the medical corps as first lieutenants; after three years they become captains; after twelve years, majors; after twenty years, lieutenant colonels, and after twenty-six years, colonels. Successful applicants will be sent to the Army Medical School, Washington, D. C., for a course of instruction in military medicine and surgery. The school has unusually complete laboratory and library facilities, and a wealth of clinical material. On completion of this course, the young officer goes to the field service school at Carlisle Barracks, Pa., for instruction in field work and training with the modern appliances used by the medical department; following this course, he is either detailed to an army post or to a large military hospital; after several years, he will be sent to foreign duty in the Philippines, Hawaii, Porto Rico, Alaska or the Panama Canal Zone. A limited number who demonstrate their ability to profit by higher specialized training are detailed each year for a course of instruction at civil institutions in this country.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 21, 1927.

The Census Report

The general report on the census of England and Wales, taken on June 19, 1921, has been published. The population numbered 37,886,699 persons, of whom 18,075,239 were males and 19,811,460 females. This represents 649 persons per square mile on the average, a density greater than that of any country in the world for which statistics are available. Though an increase has been recorded at every census, the rate of growth between 1911 and 1921 was smaller than that of any preceding decade, for which the adverse effect of the war must be accounted mainly responsible, both in the losses among men of military age and in the unprecedented fall in the birth rate. It compares favorably in this respect, however, with the rates of other European belligerents, whose populations generally advanced at a much slower rate or even declined. Nearly 80 per cent of the population were enumerated as living in urban areas, and of these practically half were found in comparatively dense aggregates represented by forty-six cities each containing more than 100,000 persons. The rate of growth of the smallest towns is above the average for the whole country, and the rate appears to increase as the towns get larger, until the populations reach a figure in the neighborhood of 100,000. After this the rate of increase tends to slacken, suggesting that 100,000 roughly marks a limit of effective aggregation beyond which the advantage of further accretion begins to be offset by counterbalancing disadvantages. The towns which showed little increase or which decreased since the preceding census are those associated with the textile industry in Lancashire and Yorkshire. The number of occupied persons given in the census is 17,178,050: males, 12,112,718; females, 5,065,332. Thirty-nine per cent of the working population were directly dependent for their livelihood on the manufacturing industries (the term being used in its widest sense); 13 per cent were employed in the wholesale and retail distributive trades, and in banking, insurance, or other commerce or finance, and 12 per cent in personal service, the latter including hotels, restaurants and hairdressing, in addition to private personal service.

LONDON AREA

Dealing with what is called the increasing divorce between residence and workplace, the report states that the outstanding example of this daily pulsation is afforded by the region of which London is the center. The following table gives a comparison of night and day populations in the city and well defined groups of boroughs:

	Night Population	Day Population
City of London........	13,709	436,721
Inner boroughs........	1,035,764	1,422,119
Outer boroughs........	3,435,050	3,130,169
Outer ring............	2,995,678	2,596,011

It is pointed out that the number given of the day population of the city, though more than thirty times that of the night population, does not take account of the large miscellaneous movements represented by visitors for shopping and other purposes, and by the traffic of all kinds passing continuously through the city in transit between areas on either side.

FEWER ALIENS

One of the features of the birthplace and nationality statistics is the comparatively heavy reduction that has occurred in the number of aliens in the country, from a proportion of

790 per hundred thousand total inhabitants in 1911 to 602 in 1921. The number of Germans fell from 53,324 to 12,358, and the nationals of most of the European countries have been reduced by not inconsiderable numbers. Belgium is an exception to the rule, for in its case the immigrants have more than doubled, aggregating 4,657 in 1911 and 9,681 in 1921. From the United States also the increment is notable, the figures rising from 13,637 to 19,171 in the decade.

The "ages" section provides the most direct evidence of the effect of the war. The depletion of males at early adult ages and the deficiency of very young children of both sexes stand out as prominent features of the age curves. The losses at the younger ages automatically result in a general aging of the population as a whole, a change that has been further accelerated by the improved vitality of the middle-aged registered in recent years. In the matter of sex distribution also the war has been responsible for a greatly increased disparity in numbers, the surplus of women now exceeding 1,700,000, as compared with fewer than 1,200,000 in 1911. Among the marriageable population the disparity is naturally greater. Between the ages of 30 and 35, for example, there are 1,470 unmarried females for every 1,000 unmarried males. The preponderance of women is also strongly marked at the old ages, to which they survive in far greater numbers than do men. The comparative rarity of the large family in general is exemplified by the average, which for all married men taken together measured only 1.27 children apiece.

Increased Hospital Beds for Rheumatic Children

The Metropolitan Asylums Board had before it at its meeting the question of the provision of additional hospital beds for children suffering from rheumatism. In January, 1926, the board approved of the provision of a unit of sixty beds at Queen Mary's Hospital for Children, Carshalton, Surrey, for the accommodation of children suffering from rheumatic fever, acute endocarditis or chorea. It was, however, clearly understood that the unit proposed by the board was primarily intended for research purposes, the hope being to admit cases as early as possible and in the most acute stage of the disease; and that the unit could not be considered as an attempt to deal with the problem of providing accommodation on a large scale for the children absent from school through rheumatic illnesses, except to the degree that successful research work might tend to reduce the number of such cases. The ministry of health now intimates that there is urgent need for additional hospital accommodation for rheumatic children. The board decided to extend the Hospital for Children by building further accommodation for about 350 London children with rheumatic disease.

Experiments on Dogs

An attempt is again being made by the antivivisectionists to get experiments on dogs prohibited by law. A conference of representatives of medical and scientific bodies was held at the British Medical Association house in order to inform the public of the importance of experimental work on dogs and to demonstrate the solidarity of the profession in the matter. Mr. R. G. Hogarth, president of the association, presided. The speakers dealt with the question from the points of view of the physician, the surgeon, the psychiatrist, the researcher, the veterinarian and the general practitioner. The following resolutions were unanimously passed: 1. That any withdrawal or curtailment of the powers at present granted under license and inspection will hinder medical research to the detriment of the health and well being of the community. 2. That the existing law should be altered so as to permit, under proper provision for the prevention of pain and for efficient inspection and control, the use, for purposes of research, of some of the numerous stray and unowned dogs now taken up by the police and condemned to the lethal chamber, thus insuring conditions that are essential to progress in physiologic knowledge and to the application of this knowledge to the practice of medicine. The chairman said that he doubted whether 5 per cent of the million persons who were said to have signed a petition praying that the use of dogs for experimental purposes might be prohibited by law were aware of the humane conditions under which experiments were carried out. The overwhelming weight of expert scientific opinion laid stress on the special experimental value of the dog because of the near analogy of its form and digestive processes to those of the human being. When he considered at how cheap and low a rate even human life was commonly valued, he was amazed at the fluent tears and hysterical emotion of those who supported the dogs protection bill. Lord Dawson of Penn, speaking from the physician's point of view, asked, Was it likely that men trained to care for human suffering would be drawn into any methods that were cruel and inconsiderate? Sir Holburt Waring dealt with the question from the surgeon's point of view, and asked would the promoters of the dogs bill prefer that our surgeons should make their experiments on their patients in order to make advance in surgery. It was far more humane to use dogs for the purpose. Prof. G. M. Robertson of Edinburgh, who spoke as a psychiatrist, said that progress at present was already greatly hindered by the difficulty of obtaining dogs for laboratory work. Sir Thomas Lewis said that much had been made of the large number of dogs killed at University College. Their use at that center of research work had been exceptional because it had been the chief school in this country to study problems relating to the circulation, and because of those problems the dogs were by far the most suitable animals. Lieut. Col. J. W. Brittlebank, president of the Royal College of Veterinary Surgeons, assured physicians of the support of his profession in their efforts to combat a mischievous agitation.

Coroner's Report for the City of London

Dr. F. J. Waldo, coroner for the city of London, Southwark and Holloway Prison, in reporting on the inquests held by him during 1926, calls attention to the frequency of suicides by coal gas and compound solution of cresol poisoning, and the desirability for an analyst's certificate of purity accompanying all anesthetic ether sold. He points out that compound solution of cresol is purchasable without any safeguarding restrictions at oil and color shops. The number of deaths caused by vehicular traffic—seventy-one—was greater than in any previous year. Fixed street crossings, with white signboards with a cross (+) and words colored green, "Cross the road here," affixed to lamps on opposite sides of streets with carlines and without refuges, had proved to be a great success, and had since been adopted in Westminster at Parliament square.

The Excessive Supply of Women Physicians

In the medical journals a surgeon, Mr. William Robinson of Sunderland, calls attention to the glut in women physicians. A single advertisement inserted in a London weekly medical journal produced forty-eight applicants for two posts (senior and junior resident medical officers to a children's hospital) at salaries of $600 and $500. Recently a like advertisement brought forth only twelve male candidates for the post of house physician at the local general hospital. An excessive number of graduates (men and women) are entering the profession in the face of a fallen and still falling sickness rate. The Medical Register already contains more than 53,000 names. It is said that out of every three qualifying in Ireland two must emigrate, and the proportion must be higher from Scotland. Mr. Robinson refers—evidently to draw the moral—to the practice of some American universities which restrict their medical students to a fixed number that can be adequately taught the practical side of their work, some of them admitting less than a fourth of the applicants and selecting only the best after inquiry and examination.

Replying to these statements, Lady Barrett, dean of the London School of Medicine for Women, denies that there is a glut of women physicians. Too much importance should not be given to the fact that so many women apply for house appointments. The reason is that in the general hospitals the postgraduate positions are not given to them in the same proportion as to men. Lady Barrett holds that there is a considerable demand for women physicians, and those who set up do remarkably well. The School of Medicine for Women recently addressed a questionnaire to its 224 students who had qualified in 1923, 1924 and 1925 concerning the work they had undertaken since; 216 answers were received. They showed that at the time of replying only thirty-three of these who desired paid work were without it; of the thirty-three, eighteen had already held resident appointments. Sixty-six were in practice or assistant practice, fifty-three held hospital appointments, twelve had public health appointments, nineteen were in the mission field, ten had government appointments abroad, seven were reading for higher degrees, six were traveling abroad, and ten had given up practice for marriage or other reasons.

VIENNA

(From Our Regular Correspondent)

April 26, 1927.

The Antivivisectionists and the Antivaccinationists

The Vienna Society for the Protection of Animals, the chief object of which is to prevent cruel treatment of animals by man, has launched another crusade against vivisection. In newspaper articles and at public meetings, most bitter charges have been brought against the "cruel physicians" because of their "useless" animal experimentation. In addition, the society has lodged vigorous complaints with the city officials and the general public because of the alleged cruelties inflicted on domestic animals during the process of slaughter in the abattoirs. The latter charges, it would seem, were justified, for an investigation undertaken by a special commission has revealed that animals are frequently subjected to unnecessarily rough and even cruel treatment. But since, in Austria, experiments on living animals are carried out only in university laboratories by professionally trained investigators, under the control of the authorities, and only on narcotized or otherwise anesthetized animals, it was plain to every thinking person that the cry against vivisection was merely a pretext. Indeed, it soon became apparent that, in reality, the crusade was aimed against smallpox vaccination. While it is true that Austria has no universally operative compulsory vaccination law, for all practical purposes the results are not essentially different, since in almost all public offices, the schools, official administrations, the army—in fact, almost everywhere — the presentation of certificates in evidence of effective vaccination and revaccination is demanded. When the society endeavored to have a law promulgated prohibiting the use of animals in the testing of serums and vaccine material (though that procedure is not regarded by the law as vivisection), it became evident that the real object sought was legislation that would prevent the preparation and testing of cow lymph. Medical circles, however, lost no time in clarifying the situation in the public mind, so that the initial public sympathy for the movement soon died out.

Besredka's Method of Treating Suppurative Processes

For the past six months, control experiments with Professor Besredka's "antivirus" have been carried out in Vienna, and the results have been favorable. Besredka, of the Pasteur Institute in Paris, has prepared a bacterial filtrate (not a serum or antitoxin) that possesses specific properties. His experiences with "antivirus" are related in the *Zeitschrift für Seuchenbekämpfung* (February, 1927). Also, at the last session of the Wiener Gesellschaft für Mikro-Biologie, Professor Lehndorff and a number of other surgeons reported on cases observed in the Wiener Kinderklinik. The evidence submitted was to the effect that all suppurative processes and infected wounds, including furuncles, abscesses, anginal conditions, phlegmons, burns, acute otitis and pyodermia, react to "antivirus" in a most surprising manner. The fluid was painted on the lesions or used in the form of compresses, gargles or lavages. The most striking effect is the suppression of pain. The retrogression of furuncles and pyodermia was likewise rapid. Periosteal abscesses in dental disorders disappeared in twenty-four hours Whitlows and furuncles of the nose were promptly checked, and opened abscesses became cleansed within twenty-four hours. Besredka's contention that his bacterial filtrates have an immunizing effect was confirmed by these observations. Attempts, by the oral administration of the "antivirus," to prevent suppurative processes (puerperal processes or conditions following operations) were likewise successful, but the investigations in that connection have not yet been completed. The indications as to when the "antivirus" is to be preferred to the surgical method have been worked out only tentatively as yet. Lehndorff is now treating bacilli carriers with "antivirus," but it cannot be said that all cases respond readily. Although the theoretical explanation for the surprisingly rapid action of the "antivirus" is still unsatisfactory, the fact of the prompt effect of the method, which appears likely to bring about many changes in surgical treatment, cannot be denied.

The Skin as a Defense Organ in Syphilis

At the recent gala session of the Wiener Gesellschaft der Aerzte, Prof. Dr. Finger discussed the subject of "The Skin as a Defense Organ," at which time he stated that the disorders of the body covering are an expression of the struggle between the organism and the disease. Desensitization of the skin is often a valuable means of changing chronic into acute processes, which then yield more readily to treatment. The reciprocal actions between the skin and the internal organs, as expressed by urticaria, toxic erythema, xanthoma and scleroderma, are well known. In syphilis the individual differences in the reaction, in spite of the marked regularity and uniformity in the course of the disease, are so great that it is to be presumed that they are not due to a difference in the virus but rather to a different quality of the soil. *Spirochaeta pallida* is essentially a parasite of the connective tissue and furnishes only a weak resistance to the defense substances of the blood serum. It enters the blood through the lymph canals and finds its way rapidly into the perivascular spaces and the lymph spaces of the skin. The invasion of the skin by the parasite produces exanthems, which are defense symptoms.

Increase in the Number of Women Physicians in Vienna

During 1926, the number of women physicians engaged in the practice of medicine in Vienna was augmented from 326 to 383, which amounts to an increase of 20 per cent. The number of male physicians increased, during the same period, only 2 per cent. Since there are 3,688 physicians, including specialists, on the city register, more than 10 per cent of them are women. Only twenty years ago, it was rather the exception for one of the university instructors to admit women to his lectures, and, even now, some professors refuse them admission. It is, therefore, remarkable that women have established themselves in Vienna, to such an extent, within so short a time. At the university, during the winter semester, among the medical students there were 361 women, or 15 per cent. The statistical data on the locations chosen by women physicians are of interest. In the sections inhabited chiefly by workmen, there are only from four to six women in each district, or one physician to about 20,000 population. In the quarters inhabited mainly by the middle classes, there are from ten to fourteen women physicians per district, or one to from 6,000 to 8,000 inhabitants, while in the central portions of the city and in the hospital centers there are from forty to fifty women physicians per district, or one to from 2,000 to 3,000 population. On an average, there is one woman physician to each 4,500 inhabitants, while the men physicians (3,305) are distributed on the basis of about one to 1,550 of population. A 20 per cent increase in the number of women physicians in one year, together with a prospective further increase during the next few years, raises the question whether, within a definite period, male physicians may not become completely superseded. However, it seems probable that men will be more likely to prefer men, and women will be more inclined to choose women, as their medical advisers. Since, at the present time, there is one man physician to every 220 men and one woman physician to each 2,500 women, no doubt a long time will elapse before the number of women physicians will equal the number of men physicians. The danger of any very acute competition between the two sexes seems, therefore, rather remote.

PARIS

(From Our Regular Correspondent)

May 4, 1927.

The Creation of an Institute of Biology

Baron Edmond de Rothschild, who is a member of the Institute of France, in the section of "*membres libres,*" has made a gift of 30,000,000 francs ($1,200,000) to found and support an institute of physicochemical biology, the need of which he suggested a number of years ago. The proposed institute was already represented by a committtee on organization. M. Girard, laboratory director at the Ecole des hautes-études, will be the administrator of the new institute, which will be under the supervision of a board composed of the organizing committee, together with a number of distinguished scientists. The institute will be erected in the school quarter, in the vicinity of the Institute Curie. An institute of mathematical physics is likewise planned, funds for which will be contributed by the same donor. The text of the document by which M. Edmond de Rothschild conveys his gift is peculiar. Its tenor is inspired by the author's personal views in regard to biology and is intended to assure the continuance of the work of Claude Bernard, who was a friend of de Rothschild. It takes account, also, of Bernard's doctrine of physicochemical determinism in relation to the phenomena of life. De Rothschild outlines thus, in a general way, the paths to be followed by the scientists of the future institute, and excludes, in advance, microbiology from their field of research. While the good intentions of the donor have been universally applauded, the restrictions that are thus placed on scientific research have been questioned in some quarters. The object seems to have been to found, over against the Pasteur Institute (the center of microbiology), a research center for the study of biologic phenomena, together with their practical applications, solely from the physical and chemical point of view. The gift is the largest that has ever been made in France by a single individual for the creation of an institute of pure science.

The Medical Convention at Marseilles

Marseilles, like many of the larger provincial cities, has long been considering the organization of a medical convention of the character of the *journées médicales;* that is to say, a local congress of medicine, with public discussion of present-day problems, selected in advance, before an assembly of scientists of the local region, aided by such strangers and foreigners as are ready to join hands with them. The convention that was held was favored by the fact that the Easter period is the preferred time for journeys through the Provence and it was a decided success. The centenary of Daviel, a well known ophthalmologist of Marseilles, was celebrated by the convention. Among the communications presented were that of Lasenet (*médecin inspecteur militaire*) on the crusade against yellow fever in French Western Africa; that of Dr. Glénard of Vichy on colonial hepatism; a paper by Prof. Léon Bernard, representative of France at the International Bureau of Health, on international cooperation in sanitary matters; a contribution by Professor Mayer of Brussels on recent advances in the treatment of cancer; a discussion by Professor Imbert on bone grafts, and a presentation by Professor Sicard on spinal compressions.

The Federation of the Latin Medical Press

A constitutive reunion of the Latin medical press was held at the Faculté de médecine in Paris, April 29-30. The organization was effected by the Association de la presse médicale française, the object being to bring together the medical press associations of the countries employing the Latin, or Romance, languages; that is, chiefly, France, Italy, Spain and the South American republics, to which may be added: the southern, or Walloon, section of Belgium, the Romansh section of Switzerland, and also Greece. The French medical press of Canada was not represented. The governments of all the other countries mentioned sent official delegates. The meeting was opened under the chairmanship of Professor Roger, dean of the Faculty of Medicine. For two days questions of a purely professional nature were discussed: reforms in medical terminology, relations with the general public, participation in the organization of international medical congresses, literary ownership of medical articles. All these questions have been previously discussed at meetings of the Association internationale de la presse médicale, founded in 1900, but whose activities became suspended with the opening of the World War. Since its functioning was connected with that of the international medical congresses, Dr. Raoul Blondel, its general secretary, has been compelled to wait, before convoking another session, for the congresses to function in a real universal manner; that is, without the mutual exclusion of nations that participated in the war. Progress toward that end has been slow. Dr. Blondel has, however, announced that the meetings of the international association will be resumed shortly, after a meeting of the permanent committee (probably at Geneva) under the auspices of the League of Nations.

The Distribution of Births and Deaths Throughout the Twenty-Four Hour Day

Addressing recently the Société de médecine de Paris, M. Laignel-Lavastine discussed the question of the distribution of births and deaths throughout the twenty-four hour day. It appears from statistics collected at the Maternité de la Pitié that the number of births is commonly greater from midnight to noon than from noon to midnight. In the service of M. Laignel-Lavastine, 113 patients died between six in the evening and six in the morning, as compared with eighty-three who died between 6 a. m. and 6 p. m. Of the 113 aforementioned patients, only nineteen died between 6 p. m. and midnight. With respect to births, the main thing really is not so much the exact hour of delivery as the precise time of the onset of labor, the length of which varies greatly. As for the distribution of deaths throughout the day, it has long been known that the most deaths occur during the first hours after sunrise in chronic patients who have struggled a long time and whose strength has become exhausted by another night without sleep.

A Newer Type of School

At the instance of Dr. Alfred Binet, agrégé professor of physiology at the Faculty of Medicine of Paris, a school has been opened in the populous twentieth arrondissement of Paris with a view to gaining experience and establishing a model for other schools in the city of Paris In the school in question, the principle is being applied of regulating the instruction to be given a pupil, not by his age but according to his physical and intellectual capacity. Each pupil, on admission to the school, is examined individually by the woman principal and the woman physician, assisted by a school nurse A record book of each pupil is prepared which shows the child's physical aptitudes based on a thorough examination including eyesight and hearing Various tests, devised by Dr Binet and Dr T Simon, of the Perray-Vaucluse school (called P V tests), are applied to the child and, depending on the rapidity, the accuracy and the intelligence of his responses, he is assigned to one of the eight classes of the school, in which the instruction is graded and varies greatly A new test of the pupils is made every three months and serves as the basis for a reclassification The results thus far secured have been excellent, and it is quite evident that one obviates in this manner the disadvantages of the ordinary method, which groups together in the same class and admits to the same studies pupils of widely different ability and capacity, half of whom are unable to derive any benefit from the instruction they receive

GENEVA

(From Our Regular Correspondent)

April 29, 1927

Care of the Insane

At the annual meeting of the Geneva Society of Mental Prophylaxis, Dr Raymond de Saussure delivered an address on the history of insane asylums in Switzerland Information on treatment of the insane during the first centuries of the Helvetic Confederation is wanting, but it is probable that at this distant epoch some of these patients were cared for in monasteries and convents, while others were placed in the families of peasants, thus forming the first colonies for the insane, similar to the famous Belgian colony at Gehl Other insane patients were imprisoned because they were considered dangerous, while still others, accused of commerce with demons, were burned at the stake This condition of affairs continued more or less generally until the eighteenth century

Nevertheless, from the year 1300, it is known that part of the monastery of Konigsfelden was used for the care of the insane The first known law pertaining to these patients dates from 1548, and contains humanitarian ideas During the sixteenth and seventeenth centuries several monasteries were organized to care for the insane, among these being the monasteries of the Cordeliers at Basle and Zurich These buildings contained cells for maniacal patients The majority of prisons at this epoch likewise had cells for this purpose The first insane hospital built in Switzerland was the Tollhaus at Berne (1749) This asylum could be heated and some excellent rules were made, among others the suppression of alcoholic drinks for the patients Still, this institution in many respects was like a prison

At the time when Pinel was making his reforms in the asylums of Paris several Swiss physicians, becoming inspired by the humanitarian ideas of the revolution introduced similar reforms in the Swiss asylums For instance, Stahli, at Konigsfelden (1810), inaugurated treatment by labor He did away with rotating chains and other pieces of apparatus of this kind, but in exceptional cases, he resorted to corporal punishment Abraham Jolly of Geneva reorganized the treatment of the insane, and in 1787 he prohibited the use of chains After Jolly, Dr Gaspard de la Rive continued the good work and with the help of Etienne Dumont and Moultou, he built in 1838 an asylum which was a model at the time Dr Frederick Brenner (1832) of Basle also did much to transform the treatment of the insane

For some years the Swiss asylums were built according to the plans used in France, following the ideas of Pinel and Esquirol At the end of the last century, however, asylums with separate pavilions were constructed The asylum of Marsans in the canton of Fribourg was the first of the kind and later on asylum villages were built at Munsterlingen, Rhenau and Lucerne at the instance of Professor Wille of Basle The asylum of Bel-Air, at Geneva, built in 1900, belongs to this class of institutions In Switzerland, as in other countries, asylums have become transformed from prisons to hospitals Switzerland has at present twenty-three insane hospitals which can care for a total of 6,000 cases, but an increase of hospital accommodation is urgently needed

Books by the Insane

Professor Weber recently delivered a lecture to the Medical Society of Geneva on books by the insane. The lecturer said that he did not take to be insane all who did not think as he did Insane people were prone to write and to send their literary productions to their physicians Frequently their books are protests against confinement in mental hospitals For example, a tailor has published a project for reforming the laws pertaining to the insane The mentally afflicted person is fond of high sounding titles and always believes that his book will cause a complete revolution in the minds of the public In depressive maniacal psychosis there are phases of excitement in which the patient is compelled to write and to develop theories or to form conjectural opinions If his delirium is not too advanced, his book will occasionally be good and his speculations fortunate in character Likewise, some poets are at their best when under the influence of alcohol Some insane persons possess a double mental state — one logical, the other rambling — thus explaining why some patients write perfectly rational letters to their families One also finds absolutely insane books written by normal individuals and it is interesting to note that even universities are often influenced by the number of papers written by candidates for professorships, rather than by their quality

International Association of Students

April 11 and 12, the meeting of the Committee of the Representatives of the International Association of Students at the League of Nations was held Among the questions studied was that of the International University Sanatorium at Leysin Among the social problems of today, the welfare of intellectuals is only just beginning to be considered Innumerable documents relating to workmen in factories and women working at home have been published, but few reports have been made on the welfare of students Unfortunately, misery exists among them Yet the desire for university culture is such that the number of students of all conditions is rapidly increasing, hence rendering the conditions — both present and future — most precarious Recently restaurants and homes have been opened for students, but until now little attention has been paid to the sick student or professor There are, of course, some university insurance institutions, but their payments in case of illness must, of necessity, be of short duration, and it must be patent to any medical man that there are other problems besides the financial one The new institution is an attempt to remedy this condition by bringing together these workers in a place where everything is done to restore their health under the best physical and moral conditions, and where they can continue their studies as far as is consistent with their physical condition

This work is due to the initiative of Dr Louis C Vauthier who for several years was physician at Leysin, during which time he treated a very large number of students and professors Several of them, from want of sufficient pecuniary resources, were compelled to give up a prolonged treatment which would have resulted in their complete recovery Struck by the intellectual inadequacy of hospital surroundings and convinced of the capital importance of the psychologic factor in cure, Dr. Vauthier, with a few friends, founded at Leysin a club with the object of bringing together the intellectuals being treated there, regardless of religion or political opinion. The affair was a great success and from it the idea of a university sanatorium developed.

Dr. Vauthier confided his project to the professors of Geneva, Lausanne and Neuchâtel and local commissions were appointed. In July, 1919, these commissions formed a committee under the presidency of Prof. G. Rossier of the Faculty of Medicine of Lausanne, and from the start the universities of German Switzerland were notified officially. Once put on foot, the project rapidly progressed and the question of a university sanatorium continued to be the object of discussion at the international meetings of students at Prague (1921), Leipzig, Paris, Oxford, Copenhagen, The Hague, Warsaw, and again at Prague in 1926. This magnificent idea will unquestionably be realized shortly.

Eye Injuries and Previous Condition

Dr. Seigrist of Berne has recently studied the influence of the previous state of health on occupational injuries. The general state previous to the accident, especially in its relation to tuberculosis and syphilis, less frequently to arteriosclerosis and hemophilia, is susceptible of influencing occupational ocular injuries. A contusion without any apparent wound may give rise to a local state and, if the subjects are, for example, tuberculous, the specific bacilli circulating in the blood become fixed in the tissues whose capacity for resistance has been decreased by the traumatism. In scrofulous ophthalmia — besides the internal factor of the disposition — the external stimulants, such as dust and minute foreign bodies, play an etiologic part of the greatest importance. Seigrist does not admit a tuberculous origin for parenchymatous keratitis, which he believes is almost entirely due to hereditary syphilis. This lesion is not the result of the action of toxins but the direct action of living spirochetes entering the cornea through the blood. This penetration is easy during fetal life but less so when the cornea has attained its complete development. The absence of inflammation persists as long as a "favorable state of allergy" is not disturbed by disturbances of metabolism, which allow the spirochetes to attack the injured structures with success. Hence a contusion may cause a parenchymatous keratitis in hereditary syphilitic subjects. The influence of the local condition previous to the traumatism can readily be surmised in many instances. An exophthalmic eye is more exposed in case of an accident, a congenital ectopia of the crystalline lens to complete dislocation. A contusion which would not result in an important lesion in a normal eye may result in detachment of the retina in a strongly myopic one. Should a stye or a suppurating dacryocystitis exist, perforating traumas will become easily infected.

On the other hand, a trauma has no relationship with the pathogenesis of sarcoma; at the most it can accelerate the development of a preexisting neoplasm. Corneal lesions supposed to be due to a long standing keratitis or to recent trauma may be moot questions, and a competent ophthalmologist should be called as soon as possible after the injury in order to detect the corneal lesions and to come to a conclusion in respect of their age.

In cataract and morbid processes of the retina and choroid, identical lesions will be found in both the uninjured and injured eye. Very frequently, subjects having been the recipients of mild ocular traumas — such as foreign bodies in the cornea — attempt to show that by the accident they have lost a considerable degree of vision; frequently this claim is due to an amblyopia from astigmatism or a strong unilateral hypermetropia, chronic glaucoma, optic atrophy uveitis or other conditions.

JAPAN

(From Our Regular Correspondent)

May 9, 1927.

The Largest Hospital in the Orient

The celebration of the completion of the Dairen Hospital, Manchuria, is to be held, May 21. It is the largest hospital ever built in the Orient. On this occasion the Manchurian central medical laboratory will also celebrate its completion, inviting some 400 guests from China and Japan. At the same time, the Manchurian medical association will hold its general meeting, and lectures will be given by Drs. Tsuji and Torigata of the Kyoto Imperial University.

Extermination of Parasites Helped by National Treasury

The home office has given instructions that the local governmental movements for extermination of parasites will, on application, be given certain pecuniary help from the national treasury. Similar help will be granted for the campaign against malaria.

Care of Underfed Children

Out of funds contributed by various countries following the great earthquake, in 1923, a large sum was expended in establishing the Children's Home in Chiba. The primary object of this home is to improve the health of the earthquake refugee children who, because of home circumstances, are sickly and underfed. There are about 6,000 of these refugee children now, and the authorities intend to give all of them an equal chance. About 100 are to be taken for a year or so at a time. Expert physicians, well trained nurses, and teachers will take charge of the institution, where book education will be given secondary consideration. Also, the Tokyo municipal elementary school physical instructors have held a section meeting, and have passed a resolution to the effect that there is urgent need of adopting proper means to improve the physical health of delicate pupils. Out of 87,973 who were examined, 3,869 pupils are reported to be in need of medical care by gift of the municipality. Their parents are without funds, and the pupils need to attend open air or seaside schools.

Dr. Araki made University Chief

For the fourth time Dr. Torasaburo Araki, by a large majority of the professional vote, has been elected president of the Kyoto Imperial University. He has headed that institution since 1915, and has been connected with it for the last twenty-eight years. He was appointed professor in the medical college of the university in 1899.

Leprosy

According to the report from the leprosarium from five to ten lepers annually have been dismissed from the institution as cured. So many well-to-do patients have applied for admission to the leprosarium that plans are on foot to enlarge the wards for private patients.

Earthquake and Fire Again

A severe earthquake and conflagration occurred suddenly, May 7, in some districts of the Kyoto Prefecture, killing more than 2,300, and injuring more than 5,000 of a population of 130,000. Medical first aid units and squads of the Red Cross Society from various parts of the country were immediately despatched to the scene of devastation. The Kyoto Imperial University Medical College Hospital has played an active part in the medical relief work.

Venereal Disease Prevention Act

The bill for combating venereal disease was presented in the fifty-second session of the Imperial Diet in March. With a few revisions, the bill passed the Diet and is expected to be put into effect in July this year The articles are as follows: Syphilis, gonorrhea and chancroid are within the scope of this law The competent authorities will be empowered, if necessary, to order the establishment of an institution for treatment as well as for consultation concerning these diseases, in order that those who are strongly suspected of propagating venereal diseases may be examined Any panderer who knows, or should suspect that the pandered are liable to be exposed to venereal disease will be fined up to 500 yen or imprisoned for a period not exceeding six months Physicians are required to supply their patients having venereal disease with information in regard to the nature of the disease from which they are suffering "Patent medicines" for venereal diseases cannot be put on sale unless there is printed on the container or wrapper the ingredients and their quantities Violation of this provision will entail cancellation of the license for the sale of the remedy if the local governor thinks such a measure necessary, and the manufacturer will be fined up to 50 yen The following five items were desired by the parliamentarians when the bill passed 1 That the law should be revised before long so as to include the general population, including infants and wet nurses 2 That the municipal consulting offices be open to citizens in general 3 That the government furnish detailed information concerning the composition of venereal "patent medicines" already on sale if asked to do so by the medical association 4 That exaggerated advertisements of these remedies be forbidden 5 That proper assistance be given to private organizations toward prevention of these diseases

BERLIN

(From Our Regular Correspondent)

May 7, 1927

The Goldschmidt Pulse Resonator

Whereas the previous devices for the exact determination of the pulse curve, as, for example, the electrocardiogram, require complicated apparatus and a special room, the pulse resonator constructed by Prof Dr Goldschmidt, physicist in the Darmstadter Technische Hochschule, is a transportable instrument that is adapted for the exact determination of the condition of the whole organism of the healthy as well as the sick The apparatus is based on the principle of resonance Resembling very much the acoustic action of tuning forks, there are twenty-four small pendulums, which are tuned to a definite wave length, so that the pulse wave sets only those pendulums in vibration that are in accord with it An easily adjustable pad is placed on the wrist over the radial artery The pad is connected by a conduction wire with a mechanism that registers on a moving strip of paper the curve of pulse frequency As a writing fluid ordinary faucet water is employed, while the paper is common newspaper stock The apparatus will function for six hours in succession

As Prof F Kraus stated in a recent address delivered before the Berliner Medizinische Gesellschaft, which was attended by Professor Einstein and the inventor of the resonator in question, the experiments that he has been carrying on in cooperation with his assistant (Seelig) have established that the pulse does not normally have the same frequency throughout a sixty-second period but varies four or five times between two fixed frequencies The span between the two rhythms amounts to from four to eight beats, ordinarily, but it may go as high as ten, or even fifteen beats On the other hand, this 'range of action' may be reduced to zero, which fact is usually associated with a rigid pulse, which may be a sign of temporary marked fatigue or exhaustion and which may often be eliminated by the mere smoking of a cigar or by engaging in a conversation This rigidity of the pulse may develop also under the influence of narcotic poisons or as the result of weakening diseases In that case, the pulse curve takes on such rigidity that no exciting influences or changes in a person's momentary employment will cause the 'curve" to deviate from its straight line Fluctuations of the pulse curve caused by change in employment, animated conversation or coughing persist in a healthy person for some time after the performance has ceased It is of biologic importance that such persisting after-effects following any slight performance or intervention as occur in a healthy subject are not noted at all in sick persons, or only to a limited extent But in a normal person the pulse may assume temporary rigidity even under strong bodily exertion, in that the heart approaches a certain maximum of beats that it cannot exceed It is possible that there is a connection between this rigid maximal pulse and the rigidity of the pulse associated with various diseases The frequency of the pulse and the amount and the type of the fluctuation serve likewise for the diagnosis of the healthy subject and the patient

From these facts there develops a great number of applications for the pulse resonator not only in physiologic but also in clinical research For instance whereas the electrocardiogram supplies information only on the course of the excitation in the heart muscle, and its chief value lies in the recognition of disturbance of the rhythm, the curve described by the pulse resonator shows the sum of all the processes that condition in any way, whether in the heart itself or in the organs of the central nervous system, the whole behavior of the heart and the blood vessels For the practicing physician the apparatus has the important requisite that it is transportable and easy to employ Kraus wants a responsible firm to take over the manufacturing of the apparatus that will be able to put it on the market at a reasonable price, so that it may soon come into general use

Iodine in Combating Goiter

The question has recently arisen as to whether it would not be better to apply iodine to the agricultural land in goitrous regions than to administer it directly This suggestion is based on the conception that plants will utilize the iodine in the soil and supply it to man in a purified form, so to speak Since the sodium nitrate brought from Chile contains iodine, it has been alleged that if sodium nitrate is used as a fertilizer there will be no need of adding iodine to the soil It is not, however, fully established that iodine added to the agricultural fields would result in an increased iodine content of plants grown therein To decide this important question, a series of experiments has recently been conducted Not only vessel trials but also field experiments have been carried out In some instances pure potassium iodide was added to the soil, in other cases the enrichment consisted of an iodine-containing ash, a by-product of cement manufacture In the field experiments from 0 5 to 1 5 Kg of iodine per hektare of land was employed, while in the vessel trials up to four times that amount was used For the experiment, a clayey soil was selected The field was in a pronounced goiter region, and of especial interest is the fact that the family owning and living on the tract of land had come from northern Germany and hence had no particular hereditary disposition The family lived exclusively from the products of the small tract There were four children in the family and all four presented symptoms of goiter The experiments showed beyond all doubt that it is impossible through artificial enrichment of the soil to effect any material change in the iodine content of the plants grown therein, not even when large quantities of iodine are employed such as might be added through natural fertilization with sodium nitrate The suggested method, therefore, does not have any value as a means of combating goiter

Marriages

Opal Hamilton Lowder to Miss Marie E. Bollinger, both of Stonington, Ill., at Herman, Miss., April 27.

Robert Emery Brennan, New York, to Miss Adele Bowne Carpenter of Long Island City, April 14.

Ralph William Bicknell, Winthrop, Maine, to Miss Mary A. McManus of Augusta, June 2.

George Audrey Williams to Miss Virginia Stone Williams, both of Atlanta, Ga., June 4.

Harry B. Levey, Gary, Ind., to Miss Betty Miller of Shelbyville, April 12, at Chicago.

Deaths

Harrison Corbet Potter, East Rochester, N. Y.; University of Buffalo School of Medicine, 1894; member and past president of the Medical Society of the State of New York; for twelve years trustee of the Mannsville Board of Education; for a number of years health officer of Mannsville and since 1922 health officer of East Rochester; served during the World War; aged 62; died, April 13, of abscess of the lung.

Bertram Howard Waters ⊕ Loomis, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1893; member of the American Climatological and Clinical Association; formerly member of the New York City Department of Health; physician in chief of the Loomis Sanatorium; aged 59; died, May 9, at the Presbyterian Hospital, New York, of pulmonary tuberculosis and chronic cystitis.

Leonidas Allen Koontz, Lacoste, Texas; Maryland Medical College, Baltimore, 1901; member of the State Medical Association of Texas; aged 52; died, March 18, at San Antonio, of pneumonia, following an operation for appendicitis.

James M. Wood, Moline, Ill.; College of Physicians and Surgeons, Chicago, 1903; member of the Illinois State Medical Society; on the staff of the Moline City Hospital; aged 64; died, May 2, of acute yellow atrophy of the liver.

Henry Spitzer ⊕ New York; Medical Department of the University of the City of New York, 1884; Spanish-American War veteran; on the staff of the Metropolitan Hospital; aged 64; died suddenly, May 7, of heart disease.

William Woodburn Davis, Bainbridge, Ohio; Ohio Medical University, Columbus, 1900; member of the Ohio State Medical Association; president of the Ross County Board of Health; aged 48; died in May, of pneumonia.

Stephen Witold Menclewski ⊕ Chicago; College of Medicine and Surgery (Physio-Medical), Chicago, 1902; on the staff of St. Mary's of Nazareth Hospital; aged 60; died, March 25, of cerebral hemorrhage.

Archibald MacLean, Sarnia, Ont., Canada; McGill University Faculty of Medicine, Montreal, Que., 1867; registrar of deeds for the county of Lambton; member of the board of education; aged 89; died in April.

William B. Smith, Dillon, S. C.; Medical College of the State of South Carolina, Charleston, 1883; member of the South Carolina Medical Association; aged 75; died, March 26, of heart disease.

Edward N. Smart, Madison, Neb.; Drake University College of Medicine, Des Moines, Iowa, 1884; professor of anatomy at his alma mater; aged 70; died suddenly, April 17, of heart disease.

Warren Benjamin ⊕ Salt Lake City, Utah; University and Bellevue Hospital Medical College, New York, 1900; on the staff of St. Mark's Hospital; aged 56; died, April 30, of heart disease.

Abraham William Bowker, Camden, N. J.; University of Pennsylvania School of Medicine, Philadelphia, 1909; aged 42; died, May 7, at the Cooper Hospital, of carcinoma of the pancreas.

Noah Allen Crouch, Assumption, Ill.; Missouri Medical College, St. Louis, 1896; aged 62; died, May 1, at the Decatur and Macon County Hospital, Decatur, of pulmonary hemorrhage.

George Frederick Giese, Danville, Iowa; Jefferson Medical College of Philadelphia, 1877; aged 76; died, April 27, at the Mount Pleasant (Iowa) State Hospital, of cerebral hemorrhage.

Percy Churchill Woodworth, Kentville, N. S., Canada; Dalhousie University Faculty of Medicine, Halifax, 1892; died, March 25, at the Victoria General Hospital, Halifax.

Walter H. Vanden, Crookston, Neb.; Medical College of Ohio, Cincinnati, 1895; member of the Nebraska State Medical Association; aged 54; died, March 21, of heart disease.

Charles A. Peterson, Richmond, Ind.; Hering Medical College, Chicago, 1905; aged 64; died, April 8, at San Diego, Calif., of bronchopneumonia and ischiorectal abscess.

Bedford Eugene Vaughan, Willow, Fla.; University of Louisville (Ky.) School of Medicine, 1894; aged 59; died, May 11, at a hospital in Tampa, following an operation.

Charles O. Boswell ⊕ Rochester, N. Y.; University of Buffalo School of Medicine, 1896; served during the World War; aged 55; died, March 17, of pneumonia.

Richard Randolph Paxson, Philadelphia; Hahnemann Medical College and Hospital, Philadelphia, 1896; aged 58; died, April 7, of cholecystitis and heart disease.

Edgar Brandon, North Bay, Ont., Canada; Trinity Medical College, Toronto, 1902; president of the Ontario Medical Association; aged 48; died, March 30.

Lydia M. Bakehorn, Peru, Ind.; Curtis Physio-Medical Institute, Marion, 1897; aged 64; died, April 11, at San Diego, Calif., of acute dilatation of the heart.

James Lyman Cowden, Youngstown, Ohio; Cleveland University of Medicine and Surgery, 1896; aged 61; died, March 1, of carcinoma of the rectum.

Mary Jane Frain, Los Angeles; Michigan Homeopathic Medical College, Lansing, 1872; aged 89; died, April 2, of embolism and chronic myocarditis.

Guy Belanger, La Prairie, Que.; University of Montreal Faculty of Medicine, 1925; aged 24; died recently, at a sanatorium in Wallum Lake, R. I.

John Henry Murphy, Valley View, Texas; Kentucky School of Medicine, Louisville, 1890; aged 63; died, February 1, of chronic interstitial nephritis.

Henry Yarwood Baldwin, Edmonton, Alta., Canada; Victoria University Medical Department, Toronto, Ont., 1881; aged 67; died, March 28.

George O. Rutledge, Danville, Ill.; Chicago Medical College, Chicago, 1877; Civil War veteran; aged 81; died, May 9, of chronic myocarditis.

Allen Watson McCleese ⊕ Morehead, Ky.; Kentucky School of Medicine, Louisville, 1894; aged 53; died, May 3, of carcinoma of the stomach.

Ray Verplank Larzalere, Escondido, Calif.; College of Physicians and Surgeons, Los Angeles, 1914; aged 38; died, May 2, of pneumonia.

Johann Cornelius Entz, Salina, Kan.; Eclectic Medical Institute, Cincinnati, 1896; aged 54; died, February 7, of pernicious anemia.

Wallace Lincoln Horn, Los Angeles; Jefferson Medical College of Philadelphia, 1895; aged 66; died, April 19, of paralysis agitans.

John Joseph Fitzpatrick ⊕ Boston; Dartmouth Medical School, Hanover, N. H., 1902; aged 54; died suddenly, May 5, of heart disease.

Warner B. Strong, Milwaukee; Hahnemann Medical College and Hospital, Chicago, 1902; aged 65; died in May, of heart disease.

Ernest Lloyd Botts, Pomona, Calif.; Stanford University School of Medicine, 1925; aged 29; died, April 5, of cerebral hemorrhage.

Will W. Homes, Columbus, Ohio; Columbus Medical College, 1877; Civil War veteran; aged 79; died, April 5, of senility.

Simon C. Keller, Sauk City, Wis.; Rush Medical College, Chicago, 1903; aged 47; died, March 21, of cerebral hemorrhage.

William Carey Chaffee, Huntington, Ind.; Chicago Medical College, 1869; aged 91; died, May 10, of chronic myocarditis.

John A. Price, Denver; Royal University of Ireland, 1884; aged 65; died, March 11, of carcinoma of the pancreas.

Robert Johnstone Kahn, New York; Albany Medical College, 1902; aged 66; died, March 28, of heart disease.

⊕ Indicates "Fellow" of the American Medical Association.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL'S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

PRODIGALUZ

A Spanish Nostrum Sold to Gullible Americans Declared a Fraud by the Post Office Department

A nostrum for the alleged cure of all diseases of the eye has been exploited during the past year in some American newspapers and magazines under the name of "Prodigaluz." The names of the individuals connected with the exploitation were E. Cuadrado, E. Martinez Cuadrado, M. Martinez Cuadrado and "Dr." J. Martinez Menendez. The last named is alleged to have been the person who prepared this latest therapeutic marvel. The claims made for Prodigaluz are reminiscent of those made for American "patent medicines" before that industry was chastened by the National Food and Drugs Act. We read:

> "Only specific in the world that cures radically and with marvelous rapidity diseases of the eyes, however serious or chronic, avoiding surgical operations so justly dreaded by patients. All trouble and pains disappear on first application. Eminently efficient in serious ophthalmia and unrivaled for granulations (blenorrhagic and purulent granulations, keratitis, ulcerations of cornea, lachrymal fistulas, etc.). Ophthalmias produced by venereal diseases are rapidly cured. Marvelous for postoperative infections. Causes cataracts to disappear during period of formation.
>
> "Destroys microbes, heals, disinfects and cures radically. No longer application of remedies containing arsenic, mercury, nitrate of silver, methylene blue and other dangerous remedies employed in clinics. Weak and old sights acquire prodigous power of vision. No longer cloudy vision. Always perfect, clear sight. Never fails. 99 per cent of eye sufferers are cured before using up the first bottle of the specific. Cures glaucoma. PRODIGALUZ does away with glasses.
>
> "PRODIGALUZ eclipses forever the treatment with collyriums employed in all eye clinics; collyriums which in most cases do more harm than the disease, by irritating such an important organ as the conjunctival mucus [*sic!*]. PRODIGALUZ abolishes the use of nitrate of silver, which is a veritable horror to patients and the cause of many cases of blindness.
>
> "PRODIGALUZ is absolutely harmless; it cures glaucoma and produces wonderful results without causing the least trouble to patients. It checks progressive myopia. If you have any eye-trouble, you are absolutely sure to recover in a very short space of time if you use the portentous specific, PRODIGALUZ."

One would suppose that the wording of the advertisement alone would be sufficient to cause any intelligent layman to reject the thing as an obvious fake. Presumably, however, there are still many persons who accept at its face value any advertisement that appears in the newspaper — simply because it appears in a newspaper. Certainly, no individual with intelligence enough to publish a newspaper could believe the claims just quoted. Nevertheless, there have been American newspapers that published these advertisements and were willing, for the money there was in it, to furnish the contact between the swindlers and their victims.

In the same advertisement it was stated that the "Dr." J. Martinez Menendez who prepared Prodigaluz had been "Decorated with the Cross of Military Service for Professional Excellence." Moreover, it was said that testimonials for Prodigaluz were forthcoming from "Judges, Magistrates, Officers of the Army, Lawyers, Doctors, Bishops, Clergymen, etc."

Those who answered the advertisements received in due course an eight-page circular in which even broader claims were made for the nostrum than had appeared in the original advertisement. They were told they could obtain an 8-gram bottle of Prodigaluz for $8.

The post-office inspector who was looking into this fraud sent $8 for a specimen, which he received in due course by registered mail. The label on the bottle of Prodigaluz declared the formula to be:

"Fluid extract of mesocarp of Juglans regia........	0.10
"Camphor	0.10
"Zincic sulphate	0.05
"Extractum rosarum	1.50"

All of the material in the case, together with the sample of medicine, were turned over to Dr. L. F. Kebler, who is the Director in Charge of Special Collaborative Investigations of the United States Department of Agriculture at Washington. Dr. Kebler as a physician and chemist has for many years been active in protecting the public against medical frauds. In his report to the Solicitor of the Post Office Department, Dr. Kebler declared Prodigaluz to be a slightly turbid liquid, having a winelike odor, and containing alcohol, potash, zinc sulphate and tannin. While camphor and extract of rosemary were included in the formula, neither of these substances was found in recognizable quantities. The doctor reported, further, that Prodigaluz is not a general specific for diseases of the eye, and that it will not cure, speedily or otherwise, trachoma, ulcerations of the cornea, cataracts, gonorrheal conjunctivitis, progressive myopia, etc.

On the basis of this report, Judge Horace J. Donnelly, Solicitor of the Post Office Department, in his memorandum to the Postmaster General, recommended the issuance of a fraud order against the concern. On May 6, 1927, Postmaster General New declared the Prodigaluz scheme a fraud and directed all postmasters who received letters addressed to this concern to stamp them "Fraudulent," and return them to their senders.

BULGARA TABLETS-H. W. & D., CULTURE OF BACILLUS BULGARICUS-LEDERLE, CULTURE OF BACILLUS BULGARICUS-FAIRCHILD, GALACTENZYME TABLETS, LACTAMPOULE, LACTIC BACILLARY TABLETS-FAIRCHILD, AND VITALAIT CULTURE OF BACILLUS BULGARICUS OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

The following report has been authorized for publication.
W. A. PUCKNER, Secretary.

In consideration of the replies to a questionnaire sent by the chairman of the Council's Committee on Lactic Acid Ferment Preparations to his associates and to others, the Council decided to retain bacillus bulgaricus preparations in New and Nonofficial Remedies, provided that the claims for these were revised to show the several preparations to be of value only in the preparation of soured milk, and, further, that all claims for their intestinal implantation and for their value as external applications be discontinued (The Present Status of Bacillus Acidophilus and Bacillus Bulgaricus Therapy, THE JOURNAL, July 17, 1926, p. 172).

The firms concerned were informed of the Council's decision and asked to submit advertising which would make their prdducts acceptable for continued inclusion in New and Nonofficial Remedies. Acceptable revision of the claims was not made in the case of each of the following products: Bulgara Tablets-H. W. & D. (Hynson, Westcott & Dunning); Culture of Bacillus Bulgaricus-Lederle (Lederle Antitoxin Laboratories); Culture of Bacillus Bulgaricus-Fairchild, Lactampoule, Lactic Bacillary Tablets-Fairchild (Fairchild Bros. & Foster); Galactenzyme Tablets (Abbott Laboratories); and Vitalait Culture of Bacillus Bulgaricus (Vitalait Laboratory of California). The Council therefore directed that these products be omitted from New and Nonofficial Remedies.

Social Importance of Heliotherapy.—More than twenty years' experience with heliotherapy in the treatment of surgical tuberculosis permits us to affirm that this treatment realizes to the highest degree the aims of orthopedics and conservative surgery. It enables us to dispense with surgical intervention, so often the cause of irreparable mutilation. By preserving the maximum of articular function, developing the musculature and restoring to the body the harmony of its outlines, it gives back to the world individuals no longer maimed and deformed, but normal and vigorous, and capable of working for their living. Thus heliotherapy acquires, for this reason alone, an incomparable social value.—*A. Rollier.*

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

BLOOD PRESSURE—SALICYLATE IN PNEUMONIA

To the Editor:—1. What does a blood pressure of 115 systolic and 60 diastolic indicate in an adult man, aged 45? Is any kind of treatment advisable? What is the prognosis? 2. What have been the results of sodium salicylate given intravenously in the treatment of pneumonia? Would it tend to cause a miscarriage in a pregnant woman? Please omit my name. M.D., Pennsylvania.

Answer.—1. There is nothing unusual about a systolic blood pressure of 115 and a diastolic of 60 even in a man aged 45, who is otherwise well. It is impossible to state any prognosis on the meager data submitted. If the general condition of the patient is good and he has been perfectly well before, a blood pressure as cited would mean nothing. On the other hand, if the systolic pressure were 135 or 140 and the diastolic pressure 80 to 85 at the outset, a drop as indicated in a case of cardiac disease or an infectious process would indicate a loss in cardiac efficiency, from which recovery might or might not occur depending on the progress of the condition and the associated symptoms.

2. Aside from its antipyretic and analgesic action, sodium salicylate is not likely to be of any value in pneumonia. Abortion has sometimes occurred during salicylate administration, but whether because of the drug or the disease has not been determined.

FIRST SENSATION OF FETAL MOVEMENTS

To the Editor:—In answer to a query in The Journal, April 23, 1927, page 1343, regarding fetal movements, it is stated that active movements may at times be recognized as early as the twelfth week of pregnancy. Although Williams states that movements may be perceived as early as the tenth week, most authors agree that the fifteenth or sixteenth week is the earliest date at which movements are felt. Please give the original authority for reports of the recognition of fetal movements in the first trimester of pregnancy. Please use initials. C. S. B., Chicago.

Answer.—In a personal communication, Williams says that his statement concerning the recognition of fetal movements as early as the tenth week of pregnancy is not based on personal observation but on the statements of several intelligent patients that they felt fetal movements at so early a period. De Lee, in his text book, says that active fetal movements may be observed as early as the twelfth week of pregnancy. This statement likewise is not based on personal observation but on a quotation of Pinard of Paris.

DEAFNESS NOT A USUAL COMPLICATION OF DIABETES

To the Editor:—I have a boy, aged 16 years, who has had diabetes advanced for years, and is now taking 20 units of insulin twice daily, but still carries some sugar. He is gradually getting deafened. Is this deafness a common complication of diabetes or should I attribute it to a possible tonsil infection the same as I might in a case of deafness without the diabetic condition? M. H. Newton, M.D., Little Falls, N. Y.

Answer.—Deafness is certainly not a definite complication in diabetes either in children or in the older arteriosclerotic patient who is more prone to trophic disturbances. When it occurs, other sources of trouble should be carefully looked for.

RÂLES IN TUBERCULOSIS

To the Editor:—Do râles always indicate that a tuberculous lesion is active? Do cases of pulmonary tuberculosis occur in which râles are not present? Please omit name. M.D., New York.

Answer.—Râles in the lungs in an arrested or apparently cured case of tuberculosis may be heard long after all activity, demonstrable by expectoration, temperature, cough and loss of weight, have disappeared. There must be, of course, moisture, however slight, to produce the fine râles that originate in the alveoli, but this moisture may be and frequently is negative for tubercle bacilli. Not infrequently, these râles are brought out by auscultation only after the postexpiratory cough. As to diagnosis in the early stage of tuberculosis, it is unwise to take râles, when unaccompanied by other signs and symptoms, as being definitely diagnostic of tuberculosis of the lungs. Some cases of tuberculosis seem to occur without demonstrable râles. Careful study of such cases will not seldom show the presence of bacilli in the sputum, which is very scanty. Again, when one resorts to the postexpiratory cough, râles will frequently be found. Before the detection of râles as the first sign of such lung involvement, one will find, usually, areas of diminished breathing (breath sounds). This last is of much importance when taken in conjunction with other signs and symptoms. Again, the danger of relying on râles alone should be emphasized.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama: Montgomery, July 12-15. Sec., Dr. S. W. Welch, Montgomery.

California: San Francisco, June 27-30. Sec., Dr. Charles B. Pinkham, *908 Forum Bldg., Sacramento.*

Colorado: Denver, July 5. Sec., Dr. David A. Strickler, 1011 Republic Bldg., Denver.

Connecticut: Hartford, July 12-13. Sec., Dr. Robert L. Rowley, 79 Elm Street, Hartford.

Delaware: Wilmington, June 21-23. State Society and Homeopathic. Pres., Dr. H. W. Briggs, 1026 Jackson St., Wilmington.

District of Columbia: July 12. Sec., Dr. Edgar P. Copeland, Suite 110, 1801 Eye Street, Washington.

Florida: Tampa, June 13-14. Sec., Dr. Wm. M. Rowlett, Box 603, Tampa.

Georgia: *Atlanta and Augusta, June 8-10.* Sec., Dr. J. W. Palmer, Ailey.

Hawaii: Honolulu, July 11-14. Sec., Dr. James A. Morgan, Young Bldg., Honolulu.

Illinois: Chicago, June 28-30. Supt. of Regis., Mr. V. C. Michels, Springfield.

Indiana: Indianapolis, June 21-23. Sec., Dr. E. M. Shanklin, 421 State House, Indianapolis.

Iowa: Iowa City, June 7-9. Director of Exams. and Licensure, Mr. H. W. Grefe, Des Moines.

Kansas: Topeka, June 21. Sec., Dr. A. S. Ross, Sabetha.

Kentucky: Louisville, June 21-23. Sec., Dr. A. T. McCormack, 532 W. Main Street, Louisville.

Louisiana: New Orleans, June 9-11. Sec., Dr. Roy B. Harrison, 1507 Hibernia Bank Bldg., New Orleans.

Maine: Bangor, July 5-6. Sec., Dr. Adam P. Leighton, Jr., *192 State* Street, Portland.

Maryland: Regular, Baltimore, June 21-24. Sec., Dr. Henry M. Fitzhugh, 1211 Cathedral St., Baltimore. Homeo. Baltimore, June 14. Sec., Dr. J. S. Garrison, 517 Old Orchard Rd., Ten Hills, Baltimore.

Massachusetts: Boston, July 12-14. Sec., Dr. Frank M. Vaughan, 144 State House, Boston.

Michigan: Ann Arbor, June 14-16 Detroit, June 20-22. Sec., Dr. Guy L. Connor, *707* Stroh Bldg., Detroit.

Minnesota: Minneapolis, June 21-23. Sec., Dr. A. E. Comstock, 636 Lowry Building, St. Paul.

Mississippi: Jackson, June 21-22. Sec., Dr. Felix J. Underwood, Jackson.

Missouri: St. Louis, July 13-15. Sec., Dr. James Stewart, Jefferson City.

Nebraska: Omaha, June 7-9. Sec., Mr. Lincoln Frost, State House, Lincoln.

New Jersey: Trenton, June 14-15. Sec., Dr. Charles B. Kelley, 28 West State Street, Trenton.

New York: Albany, Buffalo, *New York and Syracuse, June 27-30.* Chief, Professional Examinations, Mr. Herbert J. Hamilton, State Education Bldg., Albany.

North Carolina: Raleigh, June 21. Sec., Dr. John W. MacConnell, Davidson.

North Dakota: Grand Forks, July 5-8. Sec., Dr. G. M. Williamson, Grand Forks.

Ohio: Columbus, June 7-11. Sec., Dr. H. M. Platter, Hartman Hotel Bldg., Columbus.

Oregon: Portland, July 5-7. Sec., Dr. M. K. Hall, 816 Pittock Block, Portland.

Pennsylvania: Philadelphia and Pittsburgh, July 5-9. Dir. Professional Education Bureau, Mr. C. D. Koch, Harrisburg.

Rhode Island: Providence, July 7. Sec., Dr. B. U. Richards, Providence.

South Carolina: Columbia, June 28. Sec., Dr. A. Earle Boozer, 505 Saluda Ave., Columbia.

South Dakota: Huron, July 19. Dir. Medical Licensure, Dr. H. R. Kenaston, Bonesteel.

Tennessee: Memphis, Nashville and Knoxville, June 17-18. Sec., Dr. A. B. DeLoach, 733, Medical Arts Bldg., Memphis.

Texas: Austin, June 21-23. Sec., Dr. T. J. Crowe, 918 Mercantile Bank Bldg., Dallas.

Vermont: Burlington, June 22-24. Sec., Dr. W. Scott Nay, Underhill.

Virginia: Richmond, June 15-18. Sec., Dr. J. W. Preston, Box 444, Richmond.

Washington: Seattle, July 11. Basic Science Examination, Seattle, July 7-8. Ass't. Director, Mr. George L. Berger, Olympia.

West Virginia: Martinsburg, July 26. Commissioner, Dr. W. T. Henshaw, Charleston.

Wisconsin: Milwaukee, June 28-30. Sec., Dr. Robert E. Flynn, La Crosse. Basic Science Board: Milwaukee, June 27. Sec., Dr. M. F. Guyer, Madison.

Medical Economics

THE REGULATION AND CONTROL OF PHYSICIANS AND SURGEONS BY PUBLIC AUTHORITY

LAURENCE A. STEINHARDT, LL.B.
NEW YORK

Members of the medical profession are at times prone to lose sight of the extent to which they are subject to control by public authorities. As a result, coordinated efforts have not been made by the profession to counteract the increasing tendency to meddle with the practice of their profession by politicians masquerading under the guise of statesmen. The average medical practitioner rarely even observes legislation affecting his profession unless it be a matter of general public interest, such as interference with the prescription of alcoholics for medicinal purposes, or an occasional spectacular abortion case. A fraction of this legislation is unquestionably desirable and *corrective. Much of it is unnecessary and an infringement on* subjects that should be left directly under the control of the individual physician or surgeon.

LICENSE TO PRACTICE MEDICINE

There is no inalienable right to practice medicine. The right springs from a license granted by the state under regulations prescribed by the authorities. The only fundamental right of the individual which underlies the license is that it may not be withheld as a result of discrimination. A statute regulating the right to practice medicine but leaving the field open to all who possess the prescribed qualifications is sufficient.

The state acts within its powers in regulating quasi-public professions or such as require more than ordinary skill and preparation, notwithstanding that such regulations interfere with or prevent those who have long been engaged in such professions from continuing in them.

Thus it has been held that the state may repeal a statute under which a license was granted, thereby causing the license to fall.

A statute regulating the practice of medicine and surgery which excepts from its operation persons who have not been practicing in the place of their present residence for a certain time and also physicians residing out of the state specially called into it for consultation, or to attend patients, has been held unconstitutional in discriminating between persons engaged in the same profession and also in discriminating against citizens of other states.

A statute making it unlawful for any person to practice medicine within the state without first obtaining a license, and providing for the issuance of licenses only to graduates of reputable medical colleges, or to persons who have resided and practiced medicine in the state continuously for ten years, is not in conflict with the federal constitution.

An ordinance requiring the licensing of itinerant physicians, but which does not specifically confine itself to traveling physicians who were nonresidents of the city, is not open to objection as discriminating in favor of residents of the city.

As many of the statutes refer to "reputable" schools or colleges, it may be of interest to set forth the judicial interpretation given the adjective in question. The courts say that "reputable" means "worthy of repute," and that "reputability" has reference to the actual facilities which the college possesses for good work regarding the preparation of candidates for their chosen profession, as well as the actual use of such facilities so as to accomplish that end. The test to be applied is laid down by measuring the character of the college from the standpoint of individuals competent to judge by reason of their scientific attainments in the line of work for which such college stands. As a rule, the function of determining the reputability of a college rests with an administrative board.

In a leading Wisconsin decision, in which the board had fixed a minimum charge to students of $100 per term, the court was of the opinion that the board could not declare the college not "reputable" because in violation of the term fee the college had made concessions in favor of worthy young men.

There is a conflict of authority as to whether a physician who brings an action to recover for professional services rendered by him has the burden of proving that he is a duly licensed or registered physician or whether the burden rests on the defense to show that the plaintiff does not possess such a license. In Delaware, Indiana, New Jersey, Massachusetts, Texas, Wisconsin, Kansas and Georgia the burden of proof rests on the physician. In Montana, Iowa, New York, Illinois, Minnesota, Nebraska, Louisiana and South Dakota the burden rests on the defense.

It is generally conceded that when by statute a physician is required to secure a license before being admitted to practice, noncompliance with the statute bars a recovery for services rendered.

The mere neglect of a physician to register in conformity with an ordinance penalizing the practice of medicine in a city without doing so is immaterial in an action by the physician to recover for services rendered; but it should be noted that the physician in question was duly licensed to practice in the state.

There is a conflict of authority as to what constitutes practicing medicine in violation of the various statutes. Some of the courts hold that the single act of prescribing medicine to one person on one day will not amount to a practicing of medicine, and that it is necessary that there should have been a continuous series of acts in order to sustain a conviction under the criminal law. In one case, a course of treatment of a single patient was held to be sufficient to constitute the practice of medicine.

REVOCATION OF LICENSE

In a leading Kansas decision under a statute prescribing the qualifications of a physician and authorizing the cancelation of the license issued to a person found to be grossly immoral, the court upheld the operation of the statute as against an individual whose habits were found to have been grossly immoral before the passage of the law.

Statutes authorizing the trial of a physician and the revocation of his license for gross ignorance or misconduct in his profession, or for immoral conduct or habits, the trial to be conducted by a recognized medical society, have been upheld as constitutional. There is a growing tendency, however, to make decisions of boards of this character reviewable by the courts.

In England there has been no judicial review where the inquiry was conducted by the board in good faith. Rhode Island has adopted a statute expressly providing for an appeal to the courts from the decision of the state board revoking a license to practice medicine. The practitioner, however, is entitled to relief in the courts in any instance in which his license has been revoked without notice or without trial before the board.

In proceedings to revoke a physician's license, the complaint is sufficient if it informs the defendant not only of the nature of the wrong laid to his charge but also of the particular instance. The proceedings at a trial under such a complaint need not be conducted with that degree of exactness which is required on a trial for a criminal offense in an ordinary tribunal of justice, nor is the physician entitled to a jury trial.

In some states, physicians are automatically disqualified from the further practice of their profession on being found guilty of a felony, and the felony need not have been committed in connection with the practice of medicine or on a patient. In many states the license may be revoked for what is described in the statute as "unprofessional or dishonorable conduct." In Illinois it was said that advertising by a surgeon of a so-called "surgical triumph" and reciting the surgeon's wonderful attainments would not be sufficient ground for revoking his certificate unless statements and promises were made which were calculated to deceive and defraud the public.

The Arkansas law providing for the revocation of the license of a physician who advertises special ability to treat or cure chronic and incurable cases has been upheld as within the police power of the state. A statute authorizing the revocation of a medical license for "gross immorality" has been sustained as not too vague, uncertain or broad, the court holding that "gross" does not mean great or big but rather wilful, flagrant and shameful. In the particular case in question the court held the physician to have violated the statute by maintaining two offices under different names, saying that he thereby clearly intended to perpetrate a fraud on the public.

It has been held that extensive advertising by a physician cannot of itself be said to be disgraceful conduct; but when such advertisements are studied attempts to impose on the credulity of the public for gain, they are deemed to be disgraceful.

In a recorded case the cancelation of a physician's license on the ground that he had performed a criminal operation was upheld even though the revocation had been effected before his conviction in a criminal court. This decision seems to run contrary to the American boast that every individual is entitled to the presumption of innocence until proved guilty. It can be justified only on the theory that the medical board found the defendant guilty of having performed a criminal operation. What the physician's status would have been with respect to his license if he had been subsequently acquitted by the jury remains dubious.

The ordinary statutes of limitations do not apply when a physician has obtained his license by fraud, and the license may be revoked at any time in the future, irrespective of the intervening lapse of time when its original issuance was fraudulently procured.

There is very little judicial authority on the right to a writ of mandamus to compel the issuance of a diploma to a medical student who has completed his course at a medical college. In a Wisconsin decision it was held that mandamus would not lie under such circumstances. In another decision it was said that mandamus was a proper remedy to compel a college to grant a student his degree if on examination he was entitled thereto where the student had fulfilled all the conditions necessary to entitle him to his degree and the refusal was arbitrary.

In a New York case the principles applicable to a writ of mandamus to compel the issuance of a diploma or license to a physician have been succinctly set forth as follows:

> Stated in general terms the principle is that mandamus will lie to compel the performance of duties purely ministerial in their nature and so clear and specific that no element of discretion is left in their performance; but as to all acts or duties necessarily calling for the exercise of judgment and discretion on the part of the officer or body of whose acts complaint is made, mandamus will not lie.

Many states have laws forbidding the practice of medicine or surgery within the state by duly licensed practitioners of other states unless certain requirements, including generally a local certificate, have first been met.

A physician traveling through the country selling his own proprietary medicines, holding himself out as a physician and examining patients, has been held to be practicing medicine within each state requiring a license from foreign physicians.

WHAT CONSTITUTES PRACTICING MEDICINE

Under statutes forbidding the practice of medicine without a license, it has been held that personal treatment of one person by another by hypnotism or massage alone unaccompanied by any direction as to the use of drugs, medicines or other remedies does not come within the term "prescribing remedies." One professing to heal the sick without the use of medicine by placing his hands on that portion of the body affected by pain, making no charge for his services but accepting voluntary offerings, is not a medical practitioner. On the other hand, an individual claiming to stop the leaks in the nervous system and repair the damages done by methodical rest and dietetics by giving nature a chance, and announcing himself as "the master mechanic of the human body," and issuing his card as "Doctor of Neurology and Ophthalmology," and who advises patients how to care for themselves so that nature might effect a cure, was found guilty of practicing medicine without a license.

In a Massachusetts case the appellate courts sustained the trial court in allowing the jury to determine whether an individual giving electric or ray baths might be found to have been practicing medicine without a license within the meaning of the statute, notwithstanding that it was admitted that the individual did not prescribe or deal out a substance to be used as medicine.

In Texas, one engaged in practicing osteopathy using no medicine or drugs was found to have been engaged in the practice of medicine within the meaning of the statute.

There is authority for the contention that one who does not solicit patronage and who does not hold himself out as or pretend to be a physician but simply advises or gives medicine to a sick person merely as a neighbor and friend and makes no charge and accepts no compensation for his services is not within the scope of a statute prohibiting the practice of medicine without a license.

The practice of midwifery has been held to be in contravention of a statute forbidding the practice of medicine without a license. In a well reasoned decision the Illinois appellate court said that it needs no argument to show the importance of obstetrics as a department of medicine, nor the necessity that those who assume to practice in that department should possess due knowledge and skill.

In Nebraska, treating diseases and injuries by Christian science was held to constitute the practice of medicine.

One engaged in the method of treatment known as chiropractic who seeks to restore the activity of the nerve on which maladjusted vertebrae had formerly pressed was found to have been practicing medicine, on the ground that one whose vertebrae were partially displaced, causing the impairment of nerve function, was inflicted with a bodily infirmity.

A chiropractor is deemed to practice medicine within the terms of the statutes in California, Iowa, Massachusetts, Michigan, New York, North Carolina, Rhode Island, Texas, Utah and Washington. A contrary view has been taken in Arkansas and Idaho.

RIGHTS OF PHYSICIANS

The question sometimes arises as to the right of a physician to sell drugs without a prescription. Strange though it may seem, in a leading Indiana decision under a statute making it unlawful for any druggist or any other person to sell cocaine except on the written prescription of a duly registered physician, it was held that no one—not even a duly licensed physician—had a right to sell cocaine without a prescription. The only two other reported cases dealing with this subject are in harmony with the case last referred to. In the one decision it was said that under a statute prohibiting the sale of certain drugs, except under specified conditions requiring among other things a prescription by a physician, proof that the individual charged with the offense was a physician was not enough to exonerate him. The court said that under the statute the mere fact that the defendant was a physician did not give him the right to sell drugs without any other prescription than such as he had orally given to the patient at the time of sale. The court intimated, however, that had the physician prescribed the drug, kept the required records and conformed to the other requirements of the statute imposed on pharmacists, a different decision might have been rendered.

In Kentucky a statute was held constitutional which requires physicians and midwives without compensation to keep a registry of all births and deaths at which they have professionally attended, giving detailed information and depositing a copy in the office of the county clerk. In Connecticut a similar statute was upheld. On the other hand, in Ohio substantially the same statute was declared unconstitutional as being an unnecessary, unreasonable and arbitrary exercise of the police power of the state. It is difficult to reconcile the Ohio decision with the tendency in recent years to impose ever increasing burdens on citizens in respect of the maintenance of records and the filing of reports in public bureaus, without compensation. If the Ohio decision be regarded as sound law, there would seem grounds for objection by practically every citizen to the rendition of various services in the course of the year for which he does not receive compensation, as, for example, the preparation and filing of income tax returns and the very complicated bookkeeping and auditing systems necessary in many instances on which to predicate the returns.

It may well be argued that a properly conducted bureau of vital statistics is as essential to the community as income tax returns, or for that matter the innumerable documents which the pharmacist and physician are required to execute and file in connection with the enforcement of the prohibition laws.

A large body of restrictive legislation has grown up from the legislative desire to prohibit the promiscuous vending of habit-forming drugs and intoxicating liquors. A Tennessee statute prohibiting the dispensing or distribution of opium except by a physician in the course of his professional practice and only when such physician is personally attending the patient was upheld.

In construing the federal statute known as the Harrison Narcotic Law, the federal courts have said that a physician is not required to keep a record of drugs dispensed or distributed in good faith when in the course of his professional practice he is in personal attendance on his patients.

In a Montana case it was said that the officials of a benevolent association charged with carrying out the rules of the association were not liable to a physician for loss of practice sustained by their enforcement of a rule that none but certain authorized physicians should be called. In line with this authority it has been held that an employer in the exercise of his absolute right to enter or refuse to enter into contractual relations may require it as a condition of employment that his employees from whose wages a certain amount was regularly deducted for medical and hospital expenses should go to a specified hospital.

No discussion of the subject of regulation would be complete without at least a passing reference to the restrictions imposed on the members of the profession in connection with the dispensing of intoxicating liquors.

Prior to the enactment of the Eighteenth Amendment and the enforcement act generally referred to as the Volstead Law, it was said that the right of a druggist to rely on a physician's certificate or prescription for the sale of intoxicating liquors in general depended on the construction of the statutes of the several states regulating the sale.

Hair-splitting is nothing new to the courts. In a recorded case the prescription recited that the liquor was prescribed "for use as a medicine." The court held that this was not a compliance with the statute, which required the prescription "as a necessary remedy."

Long before the recent statutes to bring about the enforcement of national prohibition, it was necessary that there be a new prescription for each sale. In Indiana under the statutes of 1881 prohibiting the sale of intoxicating liquors on Sunday, in a case in which a druggist sold on a written prescription on that day, the court ruled that in order to be legal the prescription must not only be explicit in its terms but must have made express reference to a sale on a Sunday. This case is a splendid example of interference with the service to humanity which the profession renders.

LEGISLATIVE ENCROACHMENT ON WHAT MAY BE PRESCRIBED

A discussion of the rules and regulations now in effect limiting the prescription of intoxicating liquors by physicians to a specified quantity within a specified period of time, as well as the cumbersome and awkward documentary red tape with which the physician has been harassed and impeded by administrative regulations operating under the prohibition laws, would add nothing to the all too sufficient acquaintance of the average practitioner with this present form of interference with the exercise of his professional judgment. The fundamental objection to the present regulations lies in the fact that they are predicated on the assumption that physicians and surgeons as a class are not to be trusted. The sins of the few malefactors become the burden and humiliation of the upright members of the profession. Following the path of least resistence, as is the wont of administrative officials, every physician is assumed to be a potential law breaker.

Irrespective of the point of view of the individual physician as to the therapeutic value of intoxicating liquor, even those who regard it as valueless for such purpose cannot view without trepidation the ever increasing encroachment on their professional knowledge by ignorant legislators and autocratic officialdom. If the several state legislatures and Congress may deny the therapeutic value of whisky and limit its prescription, thereby imposing their nonprofessional opinion, the profession may shortly anticipate a similar ban placed on other curative agents as of no medicinal value. Thus the practitioner who in good faith denies the medicinal value of whisky may tomorrow find himself face to face with a statute forbidding the prescription for medicinal purposes of a drug or medicine which he regards as of the highest therapeutic value. If it is competent for Congress and the states to deny or limit the use of whisky for medicinal purposes, is there any reason why the use of certain drugs and medicines should not next be forbidden?

The current mania for legislation, even with respect to matters which are not properly within the province of legislative bodies and which encroach on professional and scientific fields, has become such that sooner or later steps must be taken to counteract the too prevalent obsession that all human frailties can be cured by man-made law. The antitobacco laws, antievolution laws and statutes akin to them, both enacted and proposed, give ample evidence that a serious attack is and has been for sometime under way, not only on the freedom of the individual but also on matters which have heretofore been regarded as at least debatable and therefore subject to the exercise of individual judgment.

The medical profession is in a strategic position to lend invaluable support to the liberal elements in the community which have for the first time recently undertaken coordinated efforts with which to repel this attack. If physicians and surgeons as a class stand by without lending active support to their natural allies who have taken the first steps to resist the ever increasing regulation and control of everything in sight, they may some day find themselves in a position from which they may be compelled to wage this contest alone.

The medical profession should take steps through its duly constituted professional bodies to serve notice on Congress and the respective state legislatures that any further encroachment on the exercise of their individual professional judgment in treating their patients will be bitterly resented and contested. Without regard to the divergent views entertained by individual practitioners, the profession as a whole cannot and should not submit meekly to the challenge by legislative bodies that they in their ignorance of medicine and surgery are better qualified than are physicians to prescribe for their patients—whom the physician and surgeon look on from a humanitarian point of view, treating each as an individual patient and whom the legislators regard collectively as merely so many votes.

120 Broadway.

Book Notices

Introduction to Physiological Chemistry. By Meyer Bodansky, Ph.D., Associate Professor of Physiological Chemistry, University of Texas. Cloth. Price, $4. Pp. 440, with illustrations. New York: John Wiley & Sons, Inc., 1927.

This is a textbook for medical students. Though not too comprehensive, it appears to cover the more essential and the more recent developments satisfactorily. In the introductory chapters the author considers the general scope of biochemistry, the properties and general composition of tissues, and the laws of physical chemistry of biologic importance, with explanatory paragraphs on the p_H terminology, colloidal states and the Donnan membrane equilibrium. Chapters on the chemistry and origin of the carbohydrates, fats and proteins are followed by two devoted to the chemistry of digestion, absorption and putrefaction. Enzyme action is well treated. A chapter on blood and lymph follows, giving clearly the evidence for the Van Slyke explanation for the tremendous buffer value of circulating blood. Physiologic oxidations are next considered, with some emphasis placed on glutathione and iron as catalyzers. Intermediary metabolism of carbohydrates, fats and proteins is covered very well from the modern point of view. The urine and internal secretions are briefly treated, and these considerations are followed by adequate discussions on animal calorimetry and nutrition. The book is well printed and relatively free from typographic errors.

Das Problem der Mittelohrtuberkulose. Von Dr. A. I. Cemach, Facharzt für Hals-, Nasen- und Ohrenkrankheiten in Wien. Paper. Price, 9 marks. Pp. 224, with 5 illustrations. Berlin: Urban & Schwarzenberg, 1926.

This gives a complete outline of the problem of tuberculosis of the middle ear. The author gained his experience in an Austrian army hospital during the years 1915-1918, in which time he examined more than 2,700 patients with especial reference to the ears. The majority of these patients were hospitalized because they suffered from pulmonary tuberculosis in all stages. The author likewise considers a large group of individuals without pulmonary lesions as a control guide. The theoretical and practical aspects of the problem are taken up in detail, with extensive references to the literature. The manner of ear involvement, symptomatology, methods of diagnosis and treatment of tuberculous otitis are admirably and conservatively discussed and evaluated. This work is valuable for otologists in particular, dealing as it does with an oft neglected phase of their work. It is noteworthy that there are practically no references to the literature outside the German.

Clinical Neurology for Practitioners of Medicine and Medical Students: Largely Based Upon the Book by Prof. Dr. Hans Curschmann. By Edward A. Strecker, A.M., M.D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia, and Milton K. Meyers, B.S., LL.B., M.D., Neurologist to the Northern Liberties Hospital, Philadelphia. A free translation with changes and additions. Cloth. Price, $3.50. Pp. 410. Philadelphia: P. Blakiston's Son & Company, 1927.

This free translation treats of neurologic conditions in a simple manner. It contains many sweeping generalities, some misleading statements, and a few typographic errors. The volume is hardly to be compared with a number of good elementary neurologic texts already published in English.

Handbuch der Hals- Nasen- Ohrenheilkunde: Mit Einschluss der Grenzgebiete. Herausgegeben von A. Denker und O. Kahler. Band VII. Die Krankheiten des Gehörorgans II, und Band VIII. Die Krankheiten des Gehörorgans III. Paper. Price, 72 marks and 60 marks. Pp. 804 and 666, with 282 and 107 illustrations. Berlin: Julius Springer, 1927.

Among the subjects covered in the second section are the plastic operations on the ear by Schlander; acute middle ear infections by Professor Stenger; the subject of osteomyelitis of the temporal bone by Professor Schilling; diagnosis, prognosis and therapy of otogenic facial paralysis, by Professor Nuhsmann; tropical diseases of the ear by Professor Benjamin, and tuberculosis of the ear by Dr. Cemach. In the third section, otitic intracranial complications are discussed by Goerke; otogenic sinus thrombosis by Professor Haymann; brain abscess by Professor Heine; deaf-mutism by Dr. Bever-Kempton, and functional examination in deaf-mutism by Professor Brock. These volumes present the second and third sections of the part of the handbook devoted to the ear. They are encyclopedic in extent and detail. The volumes are prepared with great care and are well illustrated. The character of the work is such, however, that it does not lend itself to review, but rather to close study of any particular subject in which the reader happens to be interested and to which he refers in a work of this size. The three volumes on the ear will probably serve as one of the most complete reference works on this subject for many years. Unfortunately, the work is so large and the tremendous labor and expense involved in a translation are such that it will probably not be made for years to come.

This Business of Operations. By James Radley. Foreword by J. M. Withrow, M.D., Chief of Staff, Christ Hospital, Cincinnati. Cloth. Price, $1. Pp. 96. Cincinnati: Digest Publishing Company, 1927.

This is one of the many brochures that have been written by patients from the vivid recollections of a hospital experience. Most of them, like Cobb's, utilize the experience for the purpose of attempts—sometimes successful—at humor. There is a humorous touch to this one, but on the whole its very commendable purpose is to tell the layman—contrary to his frequent impression, the author seems to think—how earnestly and how humanely all those who have to do with the business of operations try to make it as little disagreeable as possible for the patients. The hospital itself, as he points out, is, of course, simply a hotel for the sick. The author is a layman who writes from his own experience in a hospital—a dramatic and unexpected experience—and the whole tenor of the book is one of intelligent good will and amiability. It was worth writing. It may dispel forebodings in many future hospital patients, and it can but tend to give a better understanding of hospital experiences to all its readers. These testimonies of gratitude to those in the business of caring for the sick are like charity; when intelligent, as this is, they help both the giver and the receiver.

Les maladies nerveuses. Cours professé à l'Université de Louvain. Par A. Van Gehuchten, Professeur ordinaire. New edition revised by Dr. P. van Gehuchten. Paper. Pp. 694, with illustrations. Louvain: Librairie Universitaire, 1926.

This is a new edition of a well known textbook of nervous diseases revised by Gehuchten's son for the express purpose of honoring his father. Little new material is added, but the book may be of value to the student or practitioner.

Gynecological Diagnosis and Pathology. By A. H. F. Barbour, M.D., LL.D., F.R.C.P., and B. P. Watson, M.D., F.R.C.S., F.A.C.S., Professor of Obstetrics and Gynecology in Columbia University. Third edition. Cloth. Price, $4. Pp. 223, with 209 illustrations. New York: William Wood & Company, 1927.

This is simply a reprint of the third edition, which appeared in 1922; therefore some of the more recent aids in gynecologic diagnosis, such as the tubal patency test and pneumoperitoneum with its variations, have been omitted. The book is divided into two distinct parts. The first deals with methods of diagnosis and the second with the pathologic conditions of the pelvic organs. The style of writing is simple and lucid, and the illustrations are abundant and instructive; a few, however, are not clear, and it is unfortunate that not a single illustration on the methods of examination shows a gloved hand. In the United States it is customary to use rubber gloves when making vaginal and rectal examinations. In discussing the menstrual changes in the endometrium, the authors say: "The extravasated blood finds its way to the surface and escapes into the cavity of the uterus through a series of minute breaches in the surface epithelium. There is no casting off of the surface epithelium as a whole, as was at one time thought, except under pathological conditions such as membranous dysmenorrhea, where the greater part of the mucosa may be detached." While it is essentially true that the surface epithelium is not separated as a single layer, it is nevertheless true that almost the entire functional part of the endometrium—the entire compacta and most of the spongiosa—is thrown off during menstruation. This fact has been proved by such careful observers as Schroeder, Robert Meyer, Novak and Bartelmez. However, the book, which is printed in small type, contains a large amount of useful information.

Light Treatment in Surgery. By Dr. O Bernhard Translated from the second German edition by R King Brown, B A, M D, D P H, Medical Officer of Health, Bermondsey. Cloth Price, $7 50. Pp 317, with 105 illustrations. New York: Longmans, Green and Company, Ltd, 1926.

This treatise on light as a therapeutic measure will be of great interest to the medical profession. The history of the use of light in the treatment of diseases is discussed in the first chapter. The modern development of this method of treatment is proof that during the intervening time it has almost become a lost art. The second chapter deals with sunlight and its effect on living organisms Many of the facts touched on are not new except as to their application in the treatment of disease. Exhaustive work on pathologic changes due to sunlight reveals many interesting phenomena. Under this caption the author classifies conditions brought about through exposure to the sun's heat rays and the sun's chemical rays. Light therapy is given thorough consideration, and the results obtained make it clear that this method will have a broader application in the future. A chapter is devoted to climatological light treatment. The indications for sunlight treatment in surgery have been amplified to include:

(*a*) Wounds:
  1. Traumatic wounds, in which primary union from the start cannot be expected (gunshot wounds, lacerated and confused wounds).
  2. Circulatory disturbances, or trophic derangements of the nerves (varicose ulcers, perforating ulcer of the foot).
  3. Burns, frostbite, wounds due to corrosive substances, roentgen-ray burns
  4. Infective wounds (phlegmon, whitlow, furuncles, carbuncles, buboes, discharging and chronic abscesses, such as perityphlitic and mastoid abscesses).

(*b*) Osteomyelitis.
(*c*) Fractures.
(*d*) Syphilitic ulcers which, in spite of antisyphilitic treatment, show little signs of healing
(*e*) Carcinoma of the skin.
(*f*) Certain borderland diseases, leukemia, pseudoleukemia and exophthalmic goiter.
(*g*) The great domain of surgical tuberculosis

Sunlight treatment in war surgery was extensively used. It resulted in rapid healing and gave brilliant results. Physical substitutes or aids for the sun and open air treatment of wounds are secondary only to active heliotherapy in results obtained. About a third of the book is devoted to a consideration of heliotherapy in surgical tuberculosis, results obtained by this method being superior to any other. The book as a whole is a valuable adjunct to the library of any physician.

Coprologie microscopique. Par M. Langeron, chef de laboratoire a la Faculte de medecine de Paris, et M. Rondeau du Noyer, preparateur à la Faculté de medecine de Paris Paper Price, 48 cents. Pp 132, with 129 illustrations. Paris. Masson et Cie, 1926

This monograph is an outgrowth of an article on the same subject, which appeared in the *Bulletin des sciences pharmacologiques* in 1922. The book has an absolutely practical point of view, the descriptions being limited to the morphologic details indispensable in the recognition of the elements found in the feces. As to the technical details, the authors have confined themselves to those necessary for the usual coprologic manipulations. The book is divided into two parts, the first dealing with technical methods and the second discussing the normal and abnormal constituents of the feces, especial emphasis being laid on the parasites, including protozoa, helminths and arthropods The bacterial flora of the intestinal contents is not discussed The subject matter is clearly and concisely presented The illustrations are extremely instructive Those who may have occasion to study the feces, especially from the point of view of recognition of the many parasitic forms having their habitat in the intestinal canal, may well avail themselves of this book.

Books Received

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits. Books listed in this department are not available for lending. Any information concerning them will be supplied on request.

Traite de physiologie normale et pathologique. Publie sous la direction G H Roger, professeur de physiologie a la Faculte de medecine de Paris, et Leon Binet, professeur agrege de physiologie a la Faculte de medecine de Paris Tome VII Sang et lymphe Reactions d'immunite. Par. M M Ch Achard, A Besredka, et autres—Tome XI. Reproduction et croissance Par. M. M Leon Binet, H Busquet, et autres. Cloth. Price, 65 francs each. Pp 502, and 496 with illustrations. Paris: Masson & Cie, 1927

First two volumes of encyclopedia of physiology.

Practice of Surgery: Clinical, Diagnostic, Operative, and Postoperative Edited by Dean Lewis, M D, Sc D, and others Volume II. Leather. Pp 726, with illustrations. Hagerstown, Maryland: W. F. Prior Company, Inc, 1927.

First published volume of new system of surgery—loose-leaf; by specially selected authors and a distinguished editorial board.

Bacteriological Atlas. A Series of Coloured Plates Illustrating Morphological Characters of Pathogenic Micro Organisms By Richard Muir, Demonstrator of Pathological and Bacteriological Methods in the University of Edinburgh Cloth. Price, $4 50 Pp 134, with illustrations New York. William Wood & Company, 1927.

Colored pictures of bacteria to aid elementary students.

The Ship Surgeon's Handbook By A Vavasour Elder, D S C, M R C S, L R C P, Surgeon Lieutenant Commander, R N.V.R. Third edition. Cloth Price, $3.75. Pp. 523. New York. William Wood & Company, 1927.

Reference work for ship doctors covering courtesy, etiquette, paper work and care of disease.

Epidemic Diseases of the Central Nervous System. By Arthur Salusbury MacNalty, M A, M D, Medical Officer of the Ministry of Health. Cloth. Price, 12/6 net Pp 194. London: Faber & Gwyer, 1927.

Literature and personal research on meningitis, poliomyelitis and encephalitis.

Treatment of Venereal Diseases in General Practice. By E T. Burke, D S O, M B, Ch B, Editor, Syphilis Section, "British Journal of Venereal Diseases" Cloth. Price, 5s net. Pp 162, with 6 illustrations London: Faber & Gwyer, Ltd., 1927.

Brief handbook of British practice in venereal disease with practical advice.

Your Nervous Child. A Guide for Parents and Teachers. By Erwin Wexberg, M D Authorized translation into English by Walter Beran Wolfe, M D, F R S M Cloth. Price, $1 75. Pp 178. New York: Albert & Charles Boni, 1927.

Mental hygiene of the child based on the Adler conceptions.

Semiologie des affections du système nerveux. Par J. Dejerine, professeur de clinique des maladies du systeme nerveux a la faculte de medecine de Paris Second edition Cloth Price, 190 francs Pp 1219, with 563 illustrations Paris Masson & Cie, 1926

New edition of French classic textbook of neurology.

Practical Nursing for Male Nurses in the R A. M. C. and Other Forces By Colonel E M Hassard, A M S, and A R. Hassard. Second edition Cloth Price, $3 50. Pp 405. New York: William Wood & Company, 1927.

A practical guide to first aid in injuries and diseases.

Aerzte Anekdoten aus dem 18 u. 19 Jahrhundert Herausgegeben von Dr med. Jost Willms Cloth Price, 4 marks Pp 152 Essen: W T Webels, 1927

Collected anecdotes of noted physicians of which most are not so clever or so funny as they might be.

Therapie der organischen Nervenkrankheiten. Von Privatdozent Dr. Max Schacherl, Vorstand der Neuroluesstation am Kaiser Franz Joseph Spital in Wien. Paper Price, 6 90 marks. Pp. 141 Vienna Julius Springer, 1927.

Treatment of diseases of the nervous.

Diagnostic des principaux cancers Par Henri Hartmann et autres. Paper Price, 10 francs. Pp 61 Paris Masson & Cie, 1927.

GENERAL SYSTEMATIC BACTERIOLOGY History, Nomenclature, Groups of Bacteria By R E Buchanan Ph D, Professor of Bacteriology Iowa State College Ames, Iowa Cloth Price, $6 Pp 597 Baltimore Williams & Wilkins Company, 1925

Official guide to the bacterial world

TOWARDS THE OPEN A Preface to Scientific Humanism By Henry Chester Tracy With an Introduction by Julian Huxley Cloth Price, $3 50 Pp 257 New York E P Dutton & Company, 1927

A plea for tolerance and intelligence in the individual man

DIE PATHOGENEN MIKROORGANISMEN DES AUGES Von Prof Dr F v Herrenschwand Paper Price 24 marks Pp 310, with 19 illustrations Berlin Urban & Schwarzenberg 19

Encyclopedic consideration of bacteriology of the eye

LES RADIATIONS LUMINEUSES EN PHYSIOLOGIE ET EN THÉRAPEUTIQUE De l infra rouge a l ultra violet Par A C Guillaume Paper Price, 40 francs Pp 508 with illustrations Paris Masson & Cie, 1927.

Poorly printed French textbook on light therapy

SCHRUMPFNIERE UND HOCHDRUCK Von Dr A Sachs, Assistent der Abteilung Paper Price 3 60 marks Pp 55 Vienna Julius Springer, 1927

Monograph on hypertension with report of cases

SCIENCE THE FALSE MESSIAH By C E Ayres Cloth Price, $3. Pp 296 Indianapolis Bobbs Merrill Company 1927

Clever ridicule of science which serves merely to prove how far true science stands above ridicule

FUNKTIONSPRUFUNG INNERER ORGANE Bearbeitet von H Bernhardt, K Glaessner L R Grote, und Anderen Second edition Paper Price, 6 60 marks Pp 150 with 17 illustrations Berlin Julius Springer, 1927

Manual of functional tests of organs

LES MALADIES DE L ESTOMAC ET DU DUODENUM Par Felix Ramond, medecin de l Hopital Saint Antoine Paper Price, 40 francs Pp 414, with illustrations Paris Masson & Cie, 1927

French textbook on poor paper

KING OF MAPLEDALE A Loyal Dog By Loyd Thompson Cloth. Price, $2 Pp 245 New York D Appleton & Company, 1927

A doctor's story of a champion Irish setter

LEHRBUCH DER PHYSIOLOGISCHEN UND PATHOLOGISCHEN CHEMIE Fur Studierende Arzte Biologen und Chemiker Von Prof Dr Otto Furth, Vorstand der Abteilung fur physiologische Chemie im Physiologischen Institute der Wiener Universitat I Band Organchemie 3 Lieferung Organe mit innerer Sekretion Geschwulste Second edition Paper. Pp 417 583 Leipsic F C W Vogel 1927

THE NATURE OF THE INTRA OCULAR FLUIDS Being the Sir Francis Laking Prize 1926 1927 From the Biochemical Department, St George's Hospital London By W Stewart Duke Elder British Journal of Ophthalmology (Monograph Supplement III) Paper Pp 140, with illustrations London Geo Pulman & Sons, Ltd, 1927

THE METABOLISM OF THE FASTING STEER By Francis G Benedict Director Nutrition Laboratory Carnegie Institution of Washington and Ernest G Ritzman Research Professor in Animal Nutrition New Hampshire Agricultural Experiment Station Paper Pp 246, with illustrations Washington Carnegie Institution, 1927

PRAKTIKUM DER KLINISCHEN CHEMISCHEN MIKROSKOPISCHEN UND BAKTERIOLOGISCHEN UNTERSUCHUNGSMETHODEN Von San Rat Dr M Klopstock und Dr A Kowarski Eighth edition Cloth Price 13 50 marks Pp 509, with 73 illustrations Berlin Urban & Schwarzenberg, 1927

LES SYNDROMES NEVROPATHIQUES Par A Hesnard, professeur de clinique des maladies nerveuses a l ecole d application du service de sante de la Marine Preface du professeur H Claude Paper Price, 40 francs Pp 247, with 23 illustrations Paris Gaston Doin & Cie 1927

LA TUBERCULOSE MEDICALE DE L ENFANCE Par Maurice Pehu, medecin de l Hopital Debrousse de Lyon et Andre Dufourt professeur agrege a la Faculte de medecine des Hopitaux de Lyon Boards Price, 75 francs net Pp 732, with illustrations Paris Gaston Doin & Cie, 1927

LES CANCERS DU SEIN Par Pierre Delbet professeur de clinique chirurgicale a la Faculte de medecine de Paris, et Mendaro assistant etranger a la clinique du professeur Delbet Paper Price, 50 francs Pp 559, with illustrations Paris Masson & Cie 1927

STATISTICAL REPORT OF THE CHIEF MEDICAL EXAMINER OF THE CITY OF NEW YORK JANUARY 1, 1925 TO JANUARY 1 1926 A Report to the Mayor By Charles Norris M D Chief Medical Examiner of the City of New York Paper Pp 19 New York 1927

SECOND ANNUAL REPORT OF THE PASTEUR INSTITUTE, CALCUTTA, FOR THE YEAR 1925 Paper Price, 1s 6d Pp 16 Calcutta, 1926

Medicolegal

Executor or Beneficiary Cannot Waive Privilege

(Borosich v Metropolitan Life Ins Co (Wis), 210 N W R 829)

The Supreme Court of Wisconsin says that in this action on an accident insurance policy, wherein the cause of the death of the insured was in dispute, the plaintiff called as a witness a physician who had treated the insured for some time after he had been injured in an automobile accident, and the insurance company was permitted, over objection, to introduce the testimony of other physicians who had treated the insured during the same period, the trial court holding that the plaintiff had voluntarily opened up the subject as to the cause of death, and for that reason had waived the competence of the other physicians to testify But, under the ruling made in the case of *Maine v Maryland C Co*, 172 Wis 350, 178 N W 749, to the effect that the Wisconsin statute, section 4075, gives a privilege to the patient alone which on his death cannot be waived by his executor or by a beneficiary in an insurance policy, the court erred in receiving the evidence of physicians who treated him during his last illness The same ruling was made in the case of *Will of Hunt* 122 Wis 460, 100 N W 874, and since that case was decided the legislature amended the section by substituting for the words "shall not be compelled" the words "shall not be permitted," thus disclosing an intent to give legislative sanction to the rule established by the court In the face of such a legislative declaration, this court cannot depart from the established rule It follows that for this reason alone the case must be sent back for a new trial In view of such new trial it is proper to say that the evidence of the two physicians who performed a necropsy is not barred by the statute, for they did not gain their information for the purpose of treatment Nor is the testimony of an intern, a nurse or an attendant barred because they are not legally admitted to practice and are not physicians within the meaning of the statute

Death Through Insanity Attributed to Injury to Knee

(Hepner v Department of Labor and Industries (Wash),
250 Pac R 461)

The Supreme Court of Washington, in affirming a judgment in favor of the claimant, who sought compensation under the workmen's compensation act for the death of her husband, says that it was alleged that in August, 1924, the man, while working for his employer, received an injury to his knee which progressed until he was compelled to quit work that his knee became worse, resulting in his insanity; and that while he was in that condition in November, 1924, he walked into a moving train and was killed It was insisted that there was not sufficient evidence to go to the jury on the question of whether the injury complained of produced insanity, as a result of which insanity the man came to his death, but the supreme court considers that the evidence was sufficient to take the case to the jury The evidence disclosed that the injury to the knee caused a fluid to form therein, that this fluid was withdrawn at times, and then a bandage was placed over the knee, preventing the accumulation of the fluid Two physicians testified that thereby toxin was released in the blood, which would have the effect of producing insanity There was no medical testimony in opposition thereto The jury therefore had a right to accept this evidence The evidence detailed distinguished this case from one wherein it was held that the insanity of the claimant was brought about by the consequences of the accident preying on his mind The evidence was all but conclusive that the man was insane, and from the testimony given by medical experts it was shown that his mind was that of a child If his mind was in the condition shown by the evidence, it was, of course, apparent that he could not commit suicide, as that term is usually used to indicate the action of a person who is able to weigh and appreciate the thing about to be done The court thinks that all the circumstances shown by the evidence could not reasonably support any other hypothesis than that the man met his death through wandering on the railroad track, while in an insane condition, and that, therefore, the verdict of the jury in favor of the claimant was not based on conjecture

Compensable Contraction of Typhoid Fever by Employee

(John Rissman & Son v Industrial Commission et al (Ill), 154 N E R 205)

The Supreme Court of Illinois says that this was a proceeding, under the workmen's compensation act, in which a father and mother sought compensation for the death of a daughter 20 years of age, who contracted typhoid while employed in an overall factory, and died, Aug 13, 1920 About the middle of July of that year the employees in the factory began to take sick with typhoid or paratyphoid fever, and between July 15 and the middle of August from thirty-eight to forty-one of the employees became sick with one of those diseases No cases of typhoid or paratyphoid fever in the village in which the factory was located were reported or known to the physicians testifying, in July or August, 1920, except those cases of the employees in the factory

The physician who treated the claimants' daughter testified that hers was a typical case of typhoid Over objection, he was allowed to state that in his opinion she contracted the disease at the factory through the drinking of water, and stated on cross-examination that he based his opinion on the fact that he had practiced medicine in the village for twenty-five years, and that during that time, up until 1920, there had never been an epidemic of typhoid there, and that in July and August, 1920, he treated from fifteen to thirty girls, all employees in the factory, suffering from typhoid in different degrees of severity. Another physician testified that he treated eight patients, all employees in the factory, during the epidemic, that he diagnosed the disease as paratyphoid fever, that in his opinion the cases came from a common source, that, when he found that all persons affected were employees in the factory, he concluded that the source of infection was at the factory, and that, when he learned that all employees drank water there, he concluded that the water was the source of the epidemic

While there was no specific statement by any witness that the claimants' daughter drank water or used the toilet facilities provided at the factory, the evidence was that all the employees drank the water furnished for drinking purposes and used the toilet several times a day, and that about forty out of seventy-five or eighty of those employees contracted typhoid or paratyphoid fever in July and August, 1920 Furthermore, while it is the law that an award under the compensation act cannot rest on conjecture or surmise or on the choice between two views equally compatible with the evidence, it is the law, also, that it is the province of the industrial commission to draw reasonable inferences from evidentiary facts, and that it is not the province of the courts to set aside its findings or award unless manifestly against the weight of the evidence The decision of the commission in this case that the claimants' daughter contracted typhoid at the factory through the drinking of water there furnished was not against the manifest weight of the evidence, but, in this court's judgment, was supported by the weight of the evidence It was practically certain that all the cases there of typhoid were brought about through a source of infection common to all the patients and employees, and it mattered little whether that common source was foul water that was drunk by them, or by filthy towels or other filthy articles used by them, or by foul conditions that existed at the factory and were peculiar to that working-place and found only there, as disclosed by the evidence The evidence abundantly showed that working at the factory and doing the things there that they were directed to do caused the employees, including the claimants' daughter, to contract typhoid or paratyphoid fever, and it was immaterial which of the two diseases was contracted

However, the real question in this case was whether or not the death of the claimants' daughter could be said to be the result of an accidental injury This question has really, from the evidence in this record, been practically decided by the decision of this court in *Christ v Pacific Mutual Life Ins Co* 312 Ill 525, 144 N E 161, wherein this court held that typhoid may be regarded as accidental if the disease is contracted by accidental means In the present case the claimants' daughter intended to drink the water furnished by her employer, but she did not intend to drink polluted water or water contaminated with typhoid germs The contraction of typhoid by her from the drinking of such water was unexpected and not foreseen by her, and might, therefore, be said to be accidental The evidence in the record was to the effect that it was the water that was contaminated with typhoid germs The judgment of the circuit court setting aside the award of the industrial commission in favor of the claimants is reversed and the cause remanded with directions to that court to enter a judgment confirming the decision of the industrial commission

Strictly and Continuously Confined Within the House

(Stewart v Continental Casualty Co (Wash), 250 Pac R 1081)

The Supreme Court of Washington, in affirming a judgment in favor of the plaintiff for the loss of nineteen months and twenty days' time at $100 a month, says that the real controversy was as to whether or not she could be considered as being, by reason of her disability, "strictly and continuously confined within the house and therein be under the regular care of a legally qualified physician," within the meaning of the policy of insurance sued on It appeared that in June, 1924, she became afflicted with acute glaucoma of the left eye and in February, 1925, became afflicted with acute glaucoma of the right eye From Aug 9 1924, she was continuously disabled by reason of such sickness from performing any duty pertaining to her occupation as nurse, or any other occupation, for a period of nineteen months and twenty days, during the whole of which period she was under the regular and continuous care of a legally qualified physician She went to a hospital for an operation, and then returned to her home where she was compelled to remain continually, except that she went occasionally to her physician's office for examination and treatment, and also occasionally took very short walks outdoors by advice of her physician, always when outdoors being necessarily accompanied by another person He eyes were examined and treated by her physician approximately weekly, for the most part at the physician's office

The decisions of the courts touching problems of this nature are seemingly not harmonious It seems to this court, however, that such conflict is rather more apparent than real, when each decision is particularly noticed in the light of the circumstances of the particular case dealt with Indeed, there seem to be no two cases exactly alike The words, "confined within the house," or "confined to the house," have seldom been taken by the courts in their literal meaning A case in which the language of the policy did not contain the word "strictly' in connection with "continuously" as in the policy here in question, might seem to call for a somewhat more liberal construction, but containing the words "within the house where he shall be regularly visited by a licensed physician,' that would seem to call for a rather more strict construction than the provision here of confined within the house and therein be under the regular care of a legally qualified physician" Manifestly, one can be under the care of a legally qualified physician without the physician continually, actually, personally visiting the patient at his home It seems to this court that the decided weight of authority applicable to the facts of this case in both reason and numbers, supports the contentions made in behalf of the plaintiff

It seems to this court that in a sickness confinement that compels a patient to be within doors constantly except during the time of visits of short distance and duration to his physician's office for treatment, and periods of occasional exercise in the open air, all in pursuance of the physician's directions, and at all times so out of the house necessarily accompanied by another person, and all such time spent out of the house being for the sole purpose of looking to the cure of the patient's affliction, such time of confinement and restricted movements of the patient should be considered as strictly and continuously confined within the house and therein be under the regular care of a legally qualified physician," within the meaning of this and other similar health insurance clauses.

Objection to Ten-Cent Tip Not Evidence of Insanity

(In re Riggs' Estate (Ore.), 250 Pac. R. 753)

The Supreme Court of Oregon, in reversing a decree which set aside a will, says that the testator complained to a nurse of his wife's having tipped a waiter ten cents on their trip to California. This incident was one of the main reasons mentioned in a hypothetic question for the conclusion of eminent alienists that indicated that the testator was childish and insane, particularly on account of the smallness of the transaction. In the consideration of the hypothetic question, the small matters, like the ten-cent tip, appeared to have been assumed by the alienists who testified for the contestant to have marked a change in the thoughts and habits of the testator. The hypothetic question propounded by the contestant suggested such assumption. However, the record did not bear out such a condition. The evidence was clear that the testator was always very miserly or stingy. There had been no change in his thoughts or habits in this regard. Hence the conclusions of the eminent alienists who pronounced him insane were not founded on proper facts, and must be rejected, notwithstanding that a radical change in a person's habits and thoughts is evidence of insaneness of mind.

Death from Acute Dilatation of Weakened Heart

(Thompson v. City of Binghamton (N. Y.), 218 N. Y. Supp. 355)

The Supreme Court of New York, appellate division, third department, in affirming an award of the state industrial board in favor of the claimant for the death of her husband, says that he was the janitor of a school, one of whose duties it was to go to the schoolhouse in case of a fire alarm there. One morning there was an alarm there, although there was no fire. The janitor was taken to the schoolhouse in an automobile. Two alarm bells were ringing, and he was greatly excited, becoming so nervous that he could not disconnect the electric system from a bell. The finding was that his already weakened heart, because of chronic myocarditis, gave out, and caused his death a short while after he reached the school building. It was contended that he did not receive an accidental injury within the meaning of the workmen's compensation law; but the court holds otherwise. Common speech would describe it as an accident. It was a mishap, unlooked for, unexpected, and happened without design on the man's part. The time and place were fixed; the cause of the death was determined, and the evidence sustained the determination. The excitement to which he was subjected and his activity undoubtedly hastened his death, brought his diseased heart to a climax. The overexcitement and exertion were the real proximate cause of his death. The acute dilatation of the heart was the accidental injury.

Rights as to Selecting Hospital for Injured Employee

(Crabb v. Oklahoma Gas & Electric Co. (Okla.), 250 Pac. R. 926)

The Supreme Court of Oklahoma says that the plaintiff as administratrix brought this action to recover for the alleged wrongful death of her husband, who had lived at Shawnee and was injured while in the employ of the defendant near the town of Harrah. She sought to recover special damages on account of the defendant having taken the employee from the place where he was injured to Oklahoma City and placed him in a hospital. The plaintiff testified that she requested her husband to be taken to a hospital at Shawnee; that she was required to pay her expenses at a hotel in Oklahoma City on account of her husband having been taken to a hospital at the latter place. The employee was seriously injured and required immediate medical attention. The defendant employer was authorized to exercise its judgment in selecting the hospital to which it carried the employee for treatment. It would not be liable for damages in the selection of a hospital for the treatment of the employee, if it exercised reasonable care in selecting a suitable hospital, equipped to render the necessary medical aid. Its general superintendent was on the ground, and informed of the nature and extent of the employee's injuries. He was in a better position to determine the disposition to be made of the case than the employee's wife, who was uninformed about the injury. The plaintiff did not complain of lack of attention or inefficient medical attention being given to her husband in the hospital to which he was taken.

In other words, an employer may exercise his own judgment in the selection of a hospital for the treatment of an injured employee, and he will not be liable for damages on account of the choice, if he exercises reasonable care to select a hospital suited and equipped to treat the injury suffered by the employee. But if the next of kin are on the ground and prepared to take charge of the injured employee, or they have some person on the ground properly prepared to take charge of the employee within a reasonable time after the injury, the privilege and right should be accorded to the next of kin, but the employer will not be responsible for improper treatment given the injured employee.

No Damages for Death of Woman Consenting to Abortion

(Szadiwicz v. Cantor (Mass.), 154 N. E. R. 251)

The Supreme Judicial Court of Massachusetts says, in this action brought by an administrator, that the jury could find that the defendant performed an operation on the plaintiff's intestate causing an abortion which not only destroyed embryonic life but brought on general septicemia, from which after a period of conscious suffering the intestate died. The medical evidence tended to show and it could be found that the defendant's mode of treatment was very dangerous and surgically unsound because of the use of nonsterile instruments which would be an adequate cause for the introduction of the germ into the woman's system. The jury returned a verdict awarding damages for her conscious suffering and death; but exceptions to the verdict are sustained and a judgment ordered entered for the defendant. If the woman had survived, and the defendant had sued for services, the action could not have been maintained. The act is made criminal by the statute even if the woman consented, and it would be unnecessary in an indictment to charge an assault. It was nevertheless a crime in which the woman, although not an accomplice, was a participant. While there are decisions which seem to hold that actions similar to this one to recover for the conscious suffering and death of an intestate may be maintained, in voluntarily participating in the procurement of a miscarriage on herself, the intestate joined in an act prohibited by law, which barred recovery of damages.

Society Proceedings

COMING MEETINGS

American Association for the Study of the Feebleminded, Cincinnati, June 4 6. Dr H. W. Potter, Thiells, N. Y., Secretary

American Ophthalmological Society, Quebec, Canada, June 27-29. Dr. Emory Hill, Professional Building, Richmond, Va., Secretary.

Maine Medical Association, Portland, June 13 15. Dr. B. L. Bryant, 265 Hammond Street, Bangor, Secretary.

Massachusetts Medical Society, Boston, June 6 8. Dr W. L Burrage, 182 Walnut Street, Brookline, Secretary.

Michigan State Medical Society, Mackinac Island, June 14 17. Dr. F. C. Warnshuis, Grand Rapids National Bank Bldg., Grand Rapids, Sec'y.

Minnesota State Medical Association, Duluth, June 30 July 2. Dr. E. A. Meyerding, 11 West Summit Avenue, St Paul, Secretary.

Montana, Medical Association of, Missoula, July 13 14. Dr. E G. Balsam, 222 Hart Albin Building, Billings, Secretary.

New Hampshire Medical Society, Portsmouth, June 22 23. Dr. D. E. Sullivan, 7 North State Street, Concord, Secretary.

New Jersey, Medical Society of, Atlantic City, June 9 11. Dr. J. B. Morrison, 66 Milford Avenue, Newark, Secretary

West Virginia State Medical Association, White Sulphur Springs, June 21 23. Mr Joe W Savage, 303 Professional Building, Charleston, Executive Secretary

Wyoming State Medical Society, Cheyenne, June 27 29. Dr Earl Whedon, Sheridan, Secretary.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to The Journal in America for a period of three days. No foreign journals are available prior to 1921, nor domestic prior to 1923. Periodicals published by the American Medical Association are not available for lending but may be supplied on order. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

American Journal of Anatomy, Philadelphia

39:1 134 (March 15) 1927

Structure and Normal Contents of Ductus and Saccus Endolymphaticus in Guinea Pig (Cavia Cobaya). S. R. Guild, Ann Arbor, Mich.—p. 1.
*Circulation of Endolymph. S. R. Guild, Ann Arbor, Mich.—p. 57.
*Mechanism of Cell Division. M. T. Burrows, St. Louis.—p. 83.

Circulation of Endolymph.—An experimental method of attack on the problem of the circulation of the endolymph has been planned and carried out by Guild; it is essentially a modification of the method by which the circulation of cerebrospinal fluid and of aqueous humor was determined. A solution of potassium ferrocyanide and iron ammonium citrate was introduced into the cochlear duct of living guinea pigs through suitably small openings in the external wall of the part which projects into the middle ear. The animals were killed after intervals of from forty-five minutes to forty-four hours; by the use of acid in the fixation fluid, Prussian blue granules were precipitated in situ from the injected fluid, the labyrinths were cut into serial sections, and the location of these granules determined by study with the microscope. The observations indicate that the saccus endolymphaticus has a definite function, and is thus more than a rudimentary or vestigial part. It serves as the principal place of outflow of the endolymph; not, as some have thought, as the place of origin of endolymph. The escape of fluid is not through openings in the wall, but by direct passage through the layers of the wall, being thus comparable to the flow of cerebrospinal fluid through the arachnoid villi. The possible interpretation of abnormal distention of the membranous labyrinth as an impairment of the normal pathway of the endolymph is discussed.

Mechanism of Cell Division.—Burrows asserts that the division of the cell is not the result of changes in surface tension as suggested by other authors. The surface tension of body cells remains high during this process. The division of yeast, on the other hand, is apparently of this order. The changes taking place at the astral center are changes relative to the growth of the nucleus. Growth, as it is thus applied to cells, is the period of cytoplasmic growth. Cell division is the period of the separation of the chromatin of the mother nuclei and the growth of the daughter nuclei. This mechanism of division is said to explain and correlate the mass of facts known concerning nuclear and cytoplasmic division, effects of external agents, electrical phenomena, and geometrics of cleavage; further, it correlates this process with the mechanisms of migration, growth and function in body cells.

American Journal of Hygiene, Baltimore

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Are Repeated Virulence Tests Necessary in Diphtheria Control? M. Beattie and M. Dart, San Francisco.—p. 105.
Bacteria in Nasal Cultures from Rabbits: Relation to Snuffles and Pneumonia. C. G. Bull and C. M. McKee, Baltimore.—p. 110.
Unidentified Bacillus in Nasal Discharges and Purulent Infections in Rabbits. C. G. Bull and C. M. McKee, Baltimore.—p. 114.
Results of Feeding Active Trichomonad Flagellates to Rats. D. H. Wenrich and J. Yanoff, Philadelphia.—p. 119.
*Potency of Commercial Smallpox Vaccine. J. N. Force and B. U. Eddie, San Francisco.—p. 125.
*Infection with Protozoa and Incidence of Diarrhea and Dysentery in Porto Rican Children of Preschool Age. C. M. Hill and R. B. Hill, Porto Rico.—p. 134.
Standards for Milk Pasteurization. C. E. North and W. H. Park, New York.—p. 147.
*Nearly Pure Ankylostoma Duodenale Infestation in Native South American Indians: Ethnologic Significance. F. L. Soper, Baltimore.—p. 174.
*Effect of Antiseptics on Nasal Flora of Rabbits. C. G. Bull and G. H. Bailey, Baltimore.—p. 185.

Potency of Commercial Smallpox Vaccine.—Vaccines purchased by Force and Eddie from wholesale drug houses, or branches of producing establishments, gave results superior to those given by vaccines purchased from retail druggists, when tested by the method described by Force and Leake. Potency diminishes according to the length of time since issue from the establishment, but this diminution can be retarded by storing the vaccine directly on ice. At least one tube in each of ten of fifteen samples tested with satisfactory controls showed marked deterioration. In all, twenty-eight tubes showed deterioration out of sixty tested with satisfactory controls.

Results of Stool Examination of Porto Rican Children.—Smear and culture examinations made by the Hills of 300 fecal specimens from 125 Porto Rican children showed that more than 70 per cent of the children had one or more of the common intestinal protozoa, the rates for the different species being as follows: *Endameba coli*, 19.2 per cent, *Endameba histolytica*, 2.4 per cent, *Endolimax nana*, 10.4 per cent, *Iodameba buetschlii*, 4.8 per cent, *Giardia lamblia*, 47.2 per cent, *Chilomastix mesnili*, 24 per cent, *Trichomonas hominis*, 20.9 per cent. Compared with the rate of infestation with intestinal protozoa in Porto Rican adults, the children's stools were found lightly infested with the amebic cysts, and heavily infested with the flagellates. Of the 125 children studied, 52.8 per cent had suffered from recurrent or chronic diarrhea lasting over a period of months or years, 25.6 per cent had suffered from one or more severe attacks of diarrhea not of the recurrent or chronic type, 5.6 per cent had suffered from one or more attacks of dysentery, and 16.8 per cent had never had either diarrhea or dysentery. Only three of the 125 children were found to be carriers of *Endameba histolytica*. There was no evidence that this parasite was an important cause of diarrhea or dysentery in Porto Rican children. The presence of diarrhea was found to be much more common in those children who had flagellate infestations than in those who had none. While this relation was distinct, it is not certain that the flagellates were the cause of the diarrhea.

Ancylostoma Infestation Among South American Indians.—Seventy Lengua Indians living under semicivilized conditions in the Paraguayan Chaco were found by Soper to have an Ancylostoma Necator ratio of 13 to 1; this is by far the highest ratio reported for any group on the American continent. The correlation of this observation with the species distribution of hookworms by races and geographic areas indicates that the Amerindian race originated in Asia or Indonesia, north of latitude 20 degrees N., that migrations to America were either by way of the Pacific Ocean or through the Behring Straits; if they occurred by the latter route, special conditions (either of a climatic nature or of rapidity of migration) must have been present at the time the migration took place.

Effect of Antiseptics on Nasal Flora.—The observations made by Bull and Bailey seem to eliminate the possibility of freeing the upper respiratory passages of rabbits of pathogenic organisms by treatment with antiseptic solutions. Solutions of mercurochrome, zinc sulphate, mild silver protein (argyrol), phenol (carbolic acid), dichloramine, acriflavine, crystal violet and brilliant green, allowed to run into the nostrils of rabbits, were devoid of beneficial influences, either in affecting the nasal discharges associated with snuffles or in removing pathogenic organisms. Mercurochrome seemed to cause *Bacillus bronchisepticus* to disappear from the nasal secretions. Some of the other drugs, particularly dichloramine, crystal violet and brilliant green, caused a reduction in the number of the less pathogenic organisms, but this was accompanied by an increase of the more pathogenic ones. Mercurochrome, zinc sulphate, mild silver protein and phenol apparently did not cause injury to the mucous membranes. Acriflavine seemed to be slightly irritant. Dichloramine, crystal violet and brilliant green were definitely injurious, causing profuse nasal discharges. Pneumonia frequently developed following the use of crystal violet, and rather regularly after the use of brilliant green.

American Journal of Medical Sciences, Philadelphia

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- *Synchronized Roentgen Ray Exposures. F. M. McPhedran and C. N. Weyl, Philadelphia.—p. 313.
- *Roentgenology and Diagnostic Significance of Physical Signs in Chest. R. A. Bendove, Denver.—p. 322.
- *Encephalography: Lumbar Puncture and Trephine Methods. E. R. Carpenter, Dallas, Texas.—p. 333.
- Leukemia: I. Fragility of Leukocytes. P. Szilard, Budapest, Hungary.—p. 343.
- *Id.: II. Action of Roentgen Rays. P. Szilard, Budapest, Hungary.—p. 348.
- *Rupture of Heart by Indirect Trauma. O. Saphir, Cleveland.—p. 353.
- *Lesions in Syphilitic Aortitis. W. W. Waite, El Paso, Texas.—p. 357.
- *Tender Spots on Chest Wall in Angina Pectoris. M. H. Kahn, New York.—p. 363.
- *Chronic Cholecystitis: Cholecystography: Cholecystectomy. I. Y. Olch, St. Louis.—p. 368.
- Nonspecific Granuloma of Small Intestine. A. O. Wilensky and E. Moschcowitz, New York.—p. 374.
- *Functional Spasms in Children. J. Epstein, New York.—p. 380.
- Periodic Health Examinations. W. A. Bloedorn, Washington, D. C.—p. 385.
- *Congo Red in Diagnosis of Amyloid Disease. A. Bookman and J. Rosenthal, New York.—p. 396.
- *Sulphate of Ephedrine. R. D. Rudolf, Edinburgh, and J. D. Graham, Toronto.—p. 399.
- Amphoric Breathing. N. Michelson, Bedford Hills, N. Y.—p. 409.
- End-Results of Cancer Cases and Factors Determining Them. R. B. Greenough, Boston.—p. 412.

Synchronized Roentgen-Ray Exposures.—McPhedran and Weyl present evidence that cardiac movement and vascular pulsation cause more extensive and complex pulmonary movement than has hitherto been recognized. Artefacts produced in roentgenograms have been given a pathologic interpretation. By synchronization of exposures with late diastole, such artefacts may be eliminated and finer detail, both normal and pathologic, recorded, with marked enhancement of stereoscopic accuracy.

Mechanism of Physical Signs in Chest.—Bendove asserts that roentgenology could be used to great advantage in the investigation of the mechanism of physical signs of the chest, and in evaluating their diagnostic and prognostic significance.

Encephalography as Diagnostic Aid.—From an analysis of sixty-three patients on whom encephalography was practiced, Carpenter concludes that, in addition to the restricted group of patients with brain tumor, hydrocephalus or abscess in whom the trephine method is employed for diagnosis and localization, encephalography is indispensable in the investigation of many patients troubled with headaches, petit mal convulsions, impaired mentality and other vague neurologic complaints of a more or less chronic or recurring nature. Encephalography by the lumbar puncture method under ether anesthesia, with the patient in the upright sitting position, is virtually devoid of the serious reactions encountered when made under local anesthesia, and is not more dangerous than many other useful procedures, such as tonsillectomy and appendectomy, except in patients with well developed brain tumors, with abscess, or with the communicating type of hydrocephalus. Either distention of the membranes, or reaction from the presence of air in this form of encephalography, is beneficial in certain types of headaches, and possibly in other conditions.

Action of Roentgen Rays in Leukemia.—On the basis of his experiments, Szilard concludes that specific leukolysin or autolysin will not be produced in the leukemic organism under the influence of the roentgen ray. Consequently, the effect of the roentgen rays in leukemia cannot be explained in this way, or according to the theory based on the increase of the cholin. The experiments, however, show that the low resistance of the leukemic white blood corpuscles is very definitely lowered still further by the roentgen-ray treatment. Hence, the supposition is justified that cell destruction is connected with the direct action of the rays. The effect of the roentgen ray on the distant organs or tissues not directly affected could perhaps be explained by the circumstance that under the exposure electrons invade the organism and, circulating in the blood, reach all parts of the organism, exerting their deteriorating action on the sensitive cells and tissues.

Traumatic Rupture of Heart.—Saphir relates the case of a boy, aged 4 years, who was struck by an automobile in the region of the right hip and sustained fractures of the right pubic and iliac bones. There was no evidence of injury to the chest. Pathologic changes other than the rupture in the heart were not demonstrable. The myocardium did not show evidence of previous disease.

Lesions in Syphilitic Aortitis.—In a series of 300 postmortems, thirty-three cases of syphilitic aortitis were observed by Waite. He says that syphilis may attack the aorta either locally or generally, more usually the latter. One portion may suffer severely and the rest only slightly. The first or ascending portion usually suffers most and the rest less severely, but the whole process is similar, and is a strangulation necrosis caused by periarteritis and obliterating endarteritis of the vasa vasorum, which starves and destroys the elastic layer. When the condition is violent, it travels as a serpiginous ulcer, causing aneurysms and a vegetative growth on the intima, which may break off and form emboli. The most usual site for serpiginous ulcers is in the first portion, apparently because of the anatomic structure, but the ulcers, whenever found, are due to a sudden cutting off of the blood supply to the area involved.

Tender Spots on Chest Wall in Angina Pectoris.—Of fifty-five patients with angina pectoris examined by Kahn, forty-eight presented tender spots along the ribs or on pressure over the sternum. This sign was found positive in nonanginal cases in which there was aortic or myocardial disease. In individuals without heart involvement, tender spots on the chest wall were not found in any case. In cases of angina pectoris, the tender spots are most often located on the second, third and fourth ribs to the left of the sternum (fourth cervical and second and third thoracic), and over the second and third ribs in the outer part of the right pectoral region (fourth cervical). The tender spots on the chest wall persist for a long time after an attack of angina pectoris, and sometimes continue throughout the intervals between attacks. They are especially valuable in the differential diagnosis between myocardial lesions and disease of the upper abdominal viscera.

Chronic Cholecystitis.—Olch made an analysis of 100 consecutive cases of chronic cholecystitis diagnosed with cholecystography and treated by cholecystectomy, in which the end results were investigated. He says that cholecystography is an index of physiologic function of the gallbladder, and with this in mind, cholecystitis can be detected long before marked gross changes have occurred in the gallbladder. In every case so diagnosed, cholecystectomy has resulted in complete relief of symptoms.

Functional Spasms in Children.—Epstein is convinced that functional spasms in children are more frequent than spasms due to organic nerve lesions. An early and proper diagnosis should be made of the many obscure ailments in children which have a neuromuscular or a psychic spasmodic diathesis as their basis. Proper food and healthful surroundings will act as a prophylactic during infancy. Calcium salts, phosphorated cod liver oil, iron, and whatever symptomatic treatment is indicated, will do much good as a cure and also to prevent the child drifting into the neuroses of later life.

Congo Red in Diagnosis of Amyloid Disease.—According to Bookman and Rosenthal, disappearance of 60 per cent or more of congo red from the blood in one hour is found only in the presence of amyloid disease. A lower rate of disappearance does not preclude the presence of amyloidosis.

Effect of Ephedrine on Circulation.—Rudolf and Graham studied the effect of ephedrine on the circulation, experimentally and clinically. They found that ephedrine raises the blood pressure and slows and strengthens the heart beat. On this account, it should be of value in many conditions in which the blood pressure is too low. Especially it is shown to be very useful in preventing or combating the fall in blood pressure that is apt to be caused by spinal anesthesia. There is some evidence that it tends to relieve asthma and that it raises the blood sugar. All these effects are produced by the drug when it is given by mouth, subcutaneously or intravenously, the difference in results being only one of degree. When a solution of ephedrine is applied locally to mucous membranes, a blanching and shrinking effect results without any distressing sequelae. Ephedrine has very much the same action as has epinephrine but these effects are much more lasting and, moreover, are produced when the drug is given by mouth

American Journal of Obst. and Gynec., St. Louis

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Factors Influencing End Results in Carcinoma of Cervix After Irradiation R A Kimbrough, Jr and C C Norris, Philadelphia —p 279
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*Pregnancy Following Inversion of Uterus N F Miller, Iowa City. —p 307
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Abdominal Cesarean Section in Detroit in 1926 W E Welz Detroit. —p 361
*Purpura Hemorrhagica Complicating Pregnancy H W Hottenstein and W O Klingman, Cleveland —p 375
Urinary Disturbances Following Gynecologic Operations I W Kahn, New York —p 378
*Wassermann Reaction in Pregnant Negro Women J R McCord, Atlanta, Ga —p 389
*Spontaneous Rupture of Cesarean Scar H C Williamson New York —p 391

Pregnancy Following Inversion of Uterus —Miller analyzes fifty-five cases on record and one case of his own The case is that of a young woman, aged 23 Her first baby was born in March, 1924 The confinement was entirely normal except that some difficulty was encountered in delivering the placenta, following which a complete inversion of the uterus occurred Oct 17, 1924, the lesion was corrected by a slightly modified Spinelli operation The patient s convalescence was uneventful, and she was discharged from the hospital two weeks later Oct 8, 1925, a normal male child weighing a little over 6 pounds (3 Kg) was born Examination of the cervix and uterus immediately following confinement revealed no evidence of the former operation An abnormal condition of the anterior uterine wall was not noted, a cicatrix or an abnormally thin area could not be found Reexamination two weeks later revealed nothing abnormal or unusual The puerperium was uneventful in every respect

Purpura Hemorrhagica Complicating Pregnancy —Although the case reported by Hottenstein and Klingman corresponded very closely to others associated with pregnancy—namely, the essential features of diminution of the blood platelets, spontaneous bleeding from the mucous membranes, purpuric skin lesions, delayed coagulation time, increased bleeding time, nonretractility of the clot, positive tourniquet test, and anemia —it did not retrogress soon after labor

Wassermann Reaction in Pregnant Negro Women —McCord analyzed 300 similar cases in 1925 For the whole series of 600 cases, the summary showed that 35 per cent of the births were premature, 33 per cent of the cases ended in disaster, and in 25 per cent there was hypertension The placentas were positive for syphilis in 43 5 per cent of 320 patients examined

Spontaneous Rupture of Cesarean Scar —Williamson's case was one of spontaneous rupture, three days before term, of a cesarean scar with hemorrhage from placenta separation There were no premonitory symptoms

American Journal of Surgery, New York

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Abdominal Diagnosis J B Deaver, Philadelphia —p 209
Reconstruction Operations of Hip E G Brackett, Boston —p 216
Review of Three Thousand Six Hundred Thyroidectomies J L DeCourcy, Cincinnati —p 225
Diseases of Thyroid A S Jackson, Madison, Wis —p 228
Lesions Roentgenologically Simulating Gastric Cancer A B Moore, Rochester, Minn —p 234
*Dyestuffs in Glycerin in Surgical Therapeutics V Pleth, Stockton, Calif —p 239
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*Backache from Gynecologic Standpoint G G Ward, New York —p 257
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Fracture of Rim of Acetabulum B Koven, New York —p 267
Instrument for Opening Plaster Casts S W Kelley, Cleveland —p 268

Dyestuffs in Glycerin Efficient Antiseptics —Pleth asserts that glycerin is a very efficient antiseptic, yet not toxic to the leukocytes in strength below 41 per cent Glycerin dyestuff suspensions do not cause irritation in the most painful wounds Suspensions of dyestuffs in 25 per cent propyl alcohol have proved to be excellent skin disinfectants The best bactericidal results can be had by applying the solutions hot Not only are the dyestuff solutions more toxic for gram positive bacteria when applied hot than when applied cold, but also when applied hot they become bacteriostatic for certain gram negative organisms on which, when applied cold, they are quite without effect The healing time of infected wounds is materially reduced by this method

Malignant Tumors of Testis and Scrotum —Report is made by Wesson of four cases of seminoma of the testis treated by orchidectomy and deep roentgen-ray therapy, and of a sarcoma of the scrotal raphe A positive Wassermann reaction does not necessarily indicate that an enlarged testis is gummatous If intensive antisyphilitic treatment does not cause immediate disappearance of the tumor, exploration is indicated The hydrocele present with a solid tumor should never be aspirated, for if the tumor is injured, the growth will be stimulated and local transplantation of malignant cells will occur All swellings of the testis must be considered as malignant until proved benign, hence, practically immediate surgical exploration is indicated in all doubtful cases Simple orchidectomy is never justified in cases of malignant tumors It is 100 per cent effective when there are no metastases, but these may occur with the beginning of tumor growth, and quickly pass through the primary field of lymph glands to the opposite primary field or into the inoperable secondary field The prognosis is 100 per cent good in all orchidectomies done before metastases occur, and is good in seminoma even when metastases have appeared, if orchidectomy is followed by thorough irradiation It is bad in all teratomas for, in addition to an operative mortality of 12 4 per cent, removal of the primary field of lymph glands will be ineffective if the cells have passed into the opposite primary field or into the inoperable secondary fields The radical operation must be done in all cases of teratoma, as roentgen rays do not kill these cells and it is possible that the metastases have entered the primary field and not gone beyond Treatment for teratoma consists of castration and removal of the primary lymphatic area, but for seminoma, orchidectomy and two thorough courses of deep roentgen-ray therapy Insufficient roentgen ray therapy, either as to size of dosage or number of treatments, is undoubtedly no more effective than mere castration

Embryonal Carcinoma of Abdominal Testis —Two cases are reported by Milch of embryonal carcinoma of an abdominal testis, one a large tumor with a massive retroperitoneal metastasis Several months after removal of the testis and roentgen-ray therapy, both patients are in good health and do not present evidences of metastasis or recurrence

Backache from Gynecologic Standpoint —From the standpoint of the gynecologist, Ward says, sacrolumbar backache is a prominent symptom in approximately 50 per cent of all gynecologic cases In his experience, 85 per cent are gynecologic in origin and 15 per cent are orthopedic or nonsurgical In the cases due to gynecologic disease, pelvic congestion, however produced, is a predominating factor Traction on the pelvic visceral supports, the results of injuries incident to parturition, is a common cause Pressure on the pelvic ganglions and nerves, produced by neoplasms or exudates, may result in reflex backache

Backache from Orthopedist's Standpoint.—Allison summarizes the causes of backache as follows general debility, and mental and physical fatigue, gynecologic and genitourinary lesions, neurologic lesions and spinal cord tumor often overlooked, static and postural causes, partial or complete spondylolisthesis, metabolic, toxic or infectious disease of the muscles, acute trauma, fractures, such as transverse and spinous processes and compression fractures, and dislocations, arthritis, the ankylosing type and the nonankylosing type, impinging spinous or transverse processes, congenital variations, especially asymmetrical or sacralized fifth lumbar vertebra, spina bifida occulta, tuberculosis, syphilis, typhoid and osteomyelitis, neoplasms, and combinations of any of these

American Review of Tuberculosis, Baltimore

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*Treatment of Pulmonary Tuberculosis E Rist, Paris—p 279
*Artificial Pneumothorax in Pulmonary Tuberculosis E Rist, Paris—p 294
Reactions of Guinea Pigs to Graded *Conjunctival* Infections with Tubercle Bacilli S L Cummins, Cardiff Wales—p 306
*Relations of Vitiated Air and of Inadequate Feeding to Experimental Tuberculosis H Sewall Denver—p 328
*Bronchopulmonary Spirochetosis D T Smith Ray Brook N Y—p 352
*Etiologic Agent in Bronchomycosis G I Wallace and F W Tanner, Urbana Ill—p 373
Biology of Tubercle Bacillus I Hydrogen Ion Concentration J Weinzirl and F Knapton Seattle—p 380
*Variability of Localization of Tuberculosis in Organs of Different Animals V Significance H J Corper, M B Lurie and N Uyei, *Denver—p 389*

Treatment of Tuberculosis—Rist says that collapse therapy is not only the greatest advance which has been made in the treatment of tuberculosis it has opened new ways to pathologic and immunologic investigation Its study holds in reserve much more than its routine everyday practice seems to mean With artificial pneumothorax a new era has begun

Artificial Pneumothorax in Pulmonary Tuberculosis—During a period of thirteen years, 1 009 patients have been subjected to treatment by artificial pneumothorax by Rist Among these were 759 cases of chronic, common unilateral tuberculosis of the lung, the ordinary form of consumption Of those 759 patients treated by artificial pneumothorax, 387 were clinically well at the close of this survey, the majority, namely 336, are still under treatment Some of them are without doubt definitely cured and could safely be left without refills, but they feel secure with their collapse and object to its being interrupted The rest enjoy nearly all the privileges *of a normal condition of health The unsuccessful cases* number 372, and can be divided into three groups, namely (1) condition unchanged, thirty-three cases, (2) development of contralateral lesions, ninety-nine cases, (3) deceased, 240 cases Contralateral lesions were the cause of death in 179 cases, perforation of the lung in eighteen, and intestinal tuberculosis in ten Empyema, generalized miliary tuberculosis, tuberculous meningitis, hemoptysis, amyloid, distention and failure of the heart, pulmonary embolism after phlebitis and suprarenal tuberculosis were causes in eighteen cases Rist failed to produce an artificial pneumothorax in 250 cases, on account of extensive pleural adhesions

Experimental Tuberculosis—Sewall could not find evidence that guinea pigs maintained on a diet containing a minimum of green food, and therefore *deficient in vitamins, manifested* greater susceptibility to the acquirement of tuberculosis by association with tuberculous animals than well fed guinea-pigs under similar conditions He has substantiated the proposition that "spontaneous tuberculosis" in normal guinea-pigs may be expected to develop in an infected environment, and in a degree somewhat proportional to the intimacy and duration of contact with tuberculous animals That there are factors which affect the predisposition of guinea-pigs toward tuberculosis seems probable, but Sewall has failed in his attempts to find them

Bronchopulmonary Spirochetosis.—The fourteen cases reported by Smith illustrate the wide variety of pulmonary conditions in which he has found spirochetes, fusiform bacilli *and cocci, either in the pulmonary sputum* or in the lung tissue These micro organisms are identical with those commonly present in the mouth, and from this it may be concluded that the mouth is the probable source of the pulmonary infection This view receives support from experiments now under way, in which pulmonary abscess and pulmonary gangrene have been produced in mice, guinea pigs and rabbits by intratracheal inoculations of material recovered from the gums of patients suffering from severe pyorrhea There is reason to assume that bronchial spirochetosis may be the cause of primary bronchiectasis In all of twelve cases of bronchiectasis so far examined by Smith, most of them confirmed by intratracheal inoculation of iodized oil, spirochetes, fusiform bacilli and cocci were recovered from the sputum

Fungus of Bronchomycosis.—Wallace and Tanner describe a fungus, which was isolated from the sputum of a suspected tuberculous patient The diagnosis of tuberculosis had been *made by the physician,* but he was unable to obtain confirmatory reports from several different laboratories A specimen of sputum was found to contain great numbers of cells of an organism having yeastlike colonies Acid-fast micro-organisms could not be demonstrated This suggested that the budding fungus was the etiologic factor in the original infection The fungus is believed to be *Monilia albicans,* or a very closely related variety It differs in none of the salient characteristics from this early species of Robin

Variability of Localization of Tuberculosis.—*Among the* factors controlling organic susceptibility to tuberculosis, Corper et al assert that there are preeminently (1) the distribution of the bacilli to the various organs, (2) the growth of the tubercle bacilli in the organs of the body, as controlled by the oxygen tension of its source of oxygen, (3) the ability of the cells of origin of the tubercle in the various organs of the different species to destroy the tubercle bacilli, as is indicated by the organic cellular reaction

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Graphic Scientific History History of Physiology O W Richards Eugene, Ore—p 74
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Cyst of Thyroglossal Duct Case E G Gill, Roanoke, Va —p 283
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*Primary Endothelioma of Cervical Lymph Nodes C W Flynn, Dallas, Texas —p 347
**Benign Tumors of Stomach D C Balfour and E F Henderson,* Rochester, Minn —p 354
Unilocular Cyst of Spleen L W Frank, Louisville, Ky —p 360
*Traumatic Abscess of Spleen W De P Inlow, Shelbyville, Ind —p 368
Duodenitis Twenty Six Cases E S Judd and G W Nagel, Rochester, Minn —p 380
*Use of Appendix Vermiformis in Formation of Urethra in Hypospadia S McGuire, Richmond, Va —p 391
*Suture Technic for Abdominal Closure in Cases of Drainage F Reder, St Louis —p 400
*Treatment of Tetanus S O Freedlander, Cleveland —p 405
*Chronic Tetany H J John Cleveland —p 410
Treatment of Acute Osteomyelitis A O Wilensky, New York —p 428
Fat Necrosis of Breast Twenty Cases J Gottesman and A P. Zemansky, Jr , New York —p 438
*Value of Roentgen Ray in Diagnosis of Perforated Duodenal Ulcer G F Cottle and O B Spalding Washington, D C —p 450

Treatment of Infections of Face.—Price emphasizes the fact that the treatment of infections of the nose, upper lip and face differ from the treatment of other infected areas, on account of the anatomy of these parts Here there is increased danger of thrombophlebitis, embolism, cavernous sinus thrombosis, meningitis, septicemia and pyemia The *infected process may be seen in three stages* (1) the initial lesion, (2) the period of extension, and (3) the period of thrombophlebitis, embolism and septicemia The initial lesion is usually confined to a hair follicle, sebaceous gland or sweat gland The treatment of this stage consists largely of "don'ts" "Don't squeeze, don't pick, don't cut" Alcohol should be applied to the infected areas every hour, or a drop of mercurochrome, *two or three times a day After another* twenty-four hours, the process is definitely localized in most cases and the necrotic area may be opened with safety Alcohol or mercurochrome may be applied, and resolution occurs The second stage, the period of extension, develops when localization fails to occur, or, as is usually the case, after the infected area has attracted the patient's attention, *and either he or his family physician squeeze, pick or cut* into it Within twenty-four hours the infection invades the neighboring hair follicles and glands A carbuncle is developing The patient's powers of resistance should be reinforced by feeding During the first few days the one or more necrotic points are kept open, and compresses, saturated in 4 per cent salt solution, are applied every hour, and are kept constantly wet day and *night by fresh salt solution being* added to the gauze with a dropper every fifteen minutes When the process has become localized and the process of liquefaction has advanced, small multiple incisions may be made to connect the multiple openings toward the center Small bits of gauze are inserted to keep the skin edges apart, and to maintain drainage The compresses are continued as *before until healing has occurred If the patient is seen for* the first time in the third stage of the process, with thrombosis of the cavernous sinus, meningitis or septicemia, the case is, in all probability, hopeless Nothing will be gained by multiple incisions If there is no cavernous sinus thrombosis but a septicemia is present, the same local measures as described for the second stage should be applied, and the usual methods *for combating a septicemia instituted*

Primary Endothelioma of Cervical Lymph Nodes—One case is reported by Flynn He feels that the condition is more common than is generally supposed Biopsy is the only reliable method of diagnosis A suspicious tumor of the neck should always be subjected to biopsic diagnosis early in its development *If it is determined that it is not the generalized* form, an operation should be resorted to immediately, and, *if properly performed, will probably result in a complete cure*

Benign Tumors of Stomach—In the fifty eight cases of benign tumor of the stomach reviewed by Balfour and Henderson, the tumor was removed in fifty-seven Of the thirty-six cases in which the tumor was the only lesion, the tumor was removed by excision alone in seventeen, and in the remainder (except in the case of exploration), the segment of the stomach containing the tumor was resected The situation of the tumor determined the best method of approach The procedure used most frequently was transgastric excision through an incision in the anterior wall, and division of the pedicle by the cautery In the uncomplicated benign tumors there was no operative mortality

Traumatic Abscess of Spleen.—Inlow analyzes twenty-three cases already on record, and reports one personal case occurring in a young man who had sustained a compound fracture of the humerus Death resulted three weeks after the injury The spleen abscess was discovered at the necropsy

New Urethra Made from Appendix—McGuire has successfully constructed a urethra by making use of the mucous *lining of the appendix in three cases of hypospadia*

Abdominal Closure with Drainage.—The suture used by Reder is termed a twin mattress suture The material used is silkworm gut It is necessary to use suture material of a different color to simplify the identification of the fascial structures carrying the different sutures The method has given excellent results in cases in which the liability for a postoperative hernia was great

Treatment of Tetanus—Twenty-five consecutive cases of tetanus were treated by Freedlander with large frequently repeated intravenous injections of antitoxin, with a mortality rate of 36 per cent In eleven of these there was an incubation period of less than ten days, with a mortality rate of 45 5 per cent If the six fatal cases in which death occurred before sufficient antitoxin could be administered are excluded, the mortality rate would be 12 per cent

Chronic Tetany Following Thyroidectomy—Only that form of tetany is considered by John which occasionally develops after a thyroidectomy, and which is caused, presumably, by either a direct or an indirect injury to the parathyroids *From the literature, and from personal observations* and experiments, he draws the conclusion that parathyroprival tetany is due to a disturbance of the mechanism which governs the metabolism of calcium Parathyroid extract-Collip appears to supply the essential element for the operation of this mechanism The patients with chronic tetany seen by John had a serum calcium content of not less than *8 mg per hundred cubic centimeters, while in acute tetany* the lowest figure has been 4 5 mg per hundred cubic centimeters The normal range of serum calcium appears to lie between 10 5 and 11 mg Following the administration of parathyroid extract-Collip, there is an alleviation of symptoms and the calcium in the blood rises, although there is an alternating variation during the first few hours after its administration *The administration of parathyroid extract-Collip* to normal persons results in a rise in the serum calcium content, accompanied by a reaction which may be quite severe, as in John's case The symptoms of this reaction are similar to those which accompany the onset of an acute cold, viz, headache, pains all over the body, pains in the joints, chills and fever While the symptoms of chronic tetany are relieved promptly *by the administration of parathyroid extract-Collip*, in some instances they are relieved as promptly by the administration of physiologic sodium chloride solution, a fact which leads one to believe that there is a psychologic factor in certain cases

Diagnosis of Perforated Duodenal Ulcer.—Eight cases of perforated ulcer of the duodenum, diagnosed on naval vessels afloat, are reported by Cottle and Spalding Seven patients were operated on within ten hours of onset, and all recovered A roentgen-ray observation in these cases is reported which is believed to be of more value when found than the usually unsuccessful search for diminished liver dulness The sign consists of the presence of gas between the diaphragm and the liver.

Archives Physical Therapy, X-Ray, Radium, Omaha

8. 101 162 (March) 1927

Application of Ultraviolet Light in Skin *Diseases* E P Zeisler, Chicago —p 101
Physiologic Action of Light C I Reed, *Dallas, Texas —p 108*
*Effect of Diathermy on Gastric Acidity L J Brody, Chicago —p 116
Diathermy and Surging Sinusoidal Currents in Impaired Sound Conduction E G Linn *Des Moines,* Iowa —p *122*
Value of Artificial Heliotherapy in Pulmonary Tuberculosis R C. Kirkwood Pittsburgh —p 130
*Autocondensation Therapy B B Grover, Colorado Springs —p 134
Indications for Use of Sine Currents F H Morse, Boston —p 139
History of *Ultraviolet* Ray Therapy M B Cirlin, Chicago —p 142

Effect of Diathermy on Gastric Acidity.—A *preliminary report* is made by Brody *on an experiment* undertaken with the purpose of determining the effect of diathermy on gastric acidity He says that subjecting the *stomach* at *frequent* intervals to low milliamperage with medium voltage over a long period of time tends to increase gastric acidity, both free and total In conditions in which there are pathologic *changes of* the gastric mucosa there is an increase in acidity immediately after subjection to diathermy, returning to the normal of that animal within a short period of time Low voltage cannot be used because of its *injurious effect* Higher milliamperage with medium voltage seems to produce a definite picture as far as gastric acidity is concerned There is immediately on stimulation a rise in both free and total acidity This is followed by a period of depression of varying duration, and subsequent to this a rise in the acidity The longer the periods of subjection to diathermy and the shorter the interval between *treatments, the shorter* is the period of depression in acidity

Autocondensation Therapy—Grover asserts that the dominant agent in reduction of blood pressure is autocondensation Autocondensation is a valuable method of *treatment in cases* of acute alcoholism Some patients with anemia are benefited by local autocondensation over the solar plexus Very mild dosage of autocondensation seems to benefit aneurysm of the aorta, the results being due principally to an equalization of the circulation which relieves the strain on the crippled artery In the cases of toxemia so often called *rheumatism,* the patients are practically all benefited by autocondensation Cold extremities are benefited Tesla autocondensation for fifteen minutes followed by local autocondensation to the pancreas sometimes reduces blood sugar. Headaches from toxic causes, insomnia, locomotor ataxia, angina pectoris and arteriosclerosis are benefited by this treatment

Arkansas Medical Society Journal, Little Rock

23: 163 179 (March) 1927

Hemorrhage from Stomach and Bowels (in Baby 4 Days Old) H W. Browning, Little Rock —p 163
Scabies S J Allbright, Searcy —p 164

Boston Medical and Surgical Journal

196. 509 554 (March 31) 1927

Oral Method of Cholecystography W H Stewart, New York —p 509
*Roentgen Ray Diagnosis of Subdiaphragmatic Abscess F W O Brien, Boston —p 518

Diagnosis of Subdiaphragmatic Abscess.—O'Brien says that if the history and clinical picture are correlated with a carefully made roentgen-ray examination, there is little reason why the diagnosis of subdiaphragmatic abscess should not be made with greater frequency and reliability *than in the past,* and thus prevent procrastination in the application of proper surgical measures

California and Western Medicine, San Francisco

26. 289 432 (March) 1927

Etiology and Pathology of Chronic Deforming Arthritis J V Barrow and E L. Armstrong, Los Angeles —p 323
Outlook for Diabetic E P Joslin, Boston —p 328
Surgical Treatment of Prostatic Abscess A G *Hale,* Sacramento—p *332.*
*Lung Compression and Surgery of Lung for Relief of Tuberculosis P K Brown and L Eloesser, San Francisco —p 335
*Poisonous Spider Bites, Latrodectus Mactans E Bogen and P Berman, *Los Angeles* —p 339
*Rickets at High Altitudes E H Smith, Ogden, Utah —p 341
Mongolism in Both of Twins L B Dickey, San Francisco —p 344
Etiology and Treatment of Measles E C Dickson, San Francisco —p 345
Tissue Diagnosis in Operating Room and Immediate Cover Slip Examinations of All Fluids and Pus J C Bloodgood, *Baltimore* —p 347.
Don ts in *Dermatologic Diagnosis* M *Scholtz, Los Angeles —p 347*
*Acute Intestinal Obstruction S Floersheim, Los Angeles —p 348
Pancreatic Cyst with Diabetes A R Timme, Hollywood —p 349
Hymenolepis Diminuta Case F F Gundrum *and J* R Snyder, Sacramento —p 350

Surgery of Lung in Tuberculosis.—Extraction of the phrenic nerves, multiple rib resection, pneumothorax and the combination of two or all three of these *procedures* are the means that may be employed for artificially collapsing the lung and setting it at rest Brown and Eloesser state that the results of operation are, roughly, that one third of the patients are cured; one third are improved, and one third die sooner or later The mortality of the operation is low, for phrenectomy practically nil, for thoracoplasty not more *than 10 per cent* Eloesser has done seventy-seven operations on sixty-two tuberculosis patients Thirty-two had thoracoplasties, one died of the immediate effects twenty-four hours after operation, one died ten days later of an acute caseous pneumonia, three others died of their disease, one, six months, one, two years, and one, four years after operation Probably ten are cured The phrenic nerve was avulsed *twenty-five times* there was no operative mortality; five of these patients died later in the course of their disease, seven of the remaining ones had thoracoplasties done, only one of the twenty-five was cured or strikingly benefited by the phrenic operation alone There were five patients with intrapleural pneumolyses Three of them are cured, and there were no deaths

Poisonous Spider Bites.—Fifteen cases of bite of *Latrodectus mactans,* a poisonous spider of North America, commonly known as the black widow or the shoe button or hourglass spider, are reported by Bogen and Berman Most of these patients were men who had been bitten *on the* penis while sitting in an outdoor toilet, after dark, in the late summer or early autumn In no instance was there any marked swelling or inflammation present at the site of the bite Severe pain, arising soon after the bite and increasing in intensity for an hour or two, was a constant complaint It started generally in the neighborhood of the bite, but soon spread, and *was localized in* the abdomen and legs *in nearly* all of the cases, but was also felt in the chest, arms, genitals, loins, back, and "all over' in many Profuse perspiration, restlessness, nausea and vomiting, constipation and dyspnea were prominent symptoms, but vertigo, ataxia, chills, urinary retention, localized edema, and persistent hiccough were also noted The abdomen was extremely rigid, but tenderness was usually absent, the *reflexes were hyperactive* A *mild fever,* generally around 100 and in no case going above 101 6, was usually found The pulse was generally slow as compared with the temperature The blood pressure was elevated in every instance Leukocytosis was present The treatment consisted of (1) sedation, with morphine, codeine, bromides, chloral, barbital (veronal) and hot applications, (2) stimulation, with spirits of ammonia, caffeine and strychnine, and (3) elimination, with magnesium citrate or magnesium sulphate, castor oil, calomel, enemas, catheterization and gastric lavage Convalescent serum was given *intramuscularly* in the last four severe cases The results, while not absolutely conclusive, are sufficiently encouraging to warrant the continuation of the use of this *treatment*

Rickets in Utah at High Altitudes—Smith discusses the physical conditions in 233 cases of rickets observed in and near Ogden, Utah, during a period of about three years Included in this series are 109 cases found in the course of the examination of 597 consecutive children *in the* infants' welfare station, an incidence of 18 2 per cent Sixteen, or 26 per cent, were found *in* a group of fifty-four Japanese children Of 212 infants, 158 were breast fed for six months or longer Some of these were given some form of supplemental feeding, usually modified cow's milk. The most important physical signs, in the order of their frequency, were beading of the ribs, chest deformities and poor muscle tone. The factors of good hygiene and sanitation, abundant sunshine and outdoor living, together with the greater values in ultraviolet radiations of the sunlight at this altitude, probably account for the low incidence of rickets in this region, 18.2 per cent as compared with 50 to 80 per cent among the poorer classes in eastern sea-coast cities.

Acute Intestinal Obstruction.—In the case reported by Floersheim the descending colon was moderately distended, while the sigmoid was collapsed but without signs of congestion, strangulation or gangrene. The upper pole of the sigmoid was encircled by two wide bands of fibrous tissue, each nearly 2 inches wide. From this point there was a sheet of tissue running across the abdomen to the right side, being attached to the cecum, then along the inner side of the ascending colon to the hepatic area, then across the abdomen following the transverse colon to the splenic region and downward following the descending colon to the points of constriction. This large area was a mass of countless cysts, which later proved to be an extremely rare form of pseudomucinous (golden yellow) cystic degeneration, of which, up to November, 1918, there were only three cases on record. These were found discussed only in von Bergman's system of surgery.

Georgia Medical Association Journal, Atlanta

16: 78-115 (March) 1927

Surgical Clearing House. E. C. Davis, Atlanta.—p. 78.
Essentials in Good Surgical Practice. R. H. Chaney, Augusta.—p. 82.
Gallbladder Surgery with Reference to Unrelieved Case. R. M. Harbin, Rome.—p. 85.
Clinical Results Attained in Five Thousand Nonsurgical Galltract Drainages. G. M. Niles, Atlanta.—p. 94.
Study of Gallbladder. W. H. Goodrich, Augusta.—p. 98.

Journal of Nervous and Mental Disease, New York

65: 225-344 (March) 1927

*Malaria Treatment of General Paralysis. A. Ferraro and T. C. C. Fong, Washington, D. C.—p. 225.
*Pachymeningitis Hemorrhagica. T. J. Putnam and I. K. Putnam, Boston.—p. 260.
*Neuropathologic Findings in Acute Sydenham's Chorea. L. H. Ziegler, Denver.—p. 273.
Columnar Arrangement of Primary Afferent Centers in Brain Stem of Man. W. Freeman, Washington, D. C.—p. 282.

Malaria Treatment of General Paralysis.—Among 120 patients successfully inoculated with malaria, and reviewed by Ferraro and Fong, very good remissions were obtained in thirty-one, partial remissions in twenty-nine, slight improvement in six, and no improvement in thirty-four. Twenty patients died, six of these from acute malaria. The total degree of improvement following malaria treatment amounted to 61.45 per cent. Only three cases of thirty-four of the demented type of paresis showed very good remissions, while seven were improved, three slightly improved, and twenty-one remained stationary. The highest percentage of the unimproved cases is in the demented type, which represents 52.5 per cent of the unimproved cases and 55.44 per cent of the whole group of demented cases. The greatest number of very good remissions is in the expansive-paranoid type, as out of a total of thirty-one cases of good remissions, eleven were of this paranoid type. Of the sixty-four cases showing very good or partial remissions, twenty-four, or 37.44 per cent, were in the excited-paranoid group. Next to the expansive-paranoid type, the depressed type shows the greatest number of very good remissions. The schizoid type, as well as the juvenile type, offers marked resistance to improvement. The type of general paralysis that offers the highest probability of success for the malaria treatment, as shown by the combined number of good remission and partial remission cases, is the manic type (78 per cent). This is followed by the depressed type of general paralysis (71 per cent), and then by the expansive-paranoid type (63.36 per cent) The dementing type, the juvenile, and the schizoid are next in sequence, these showing marked resistance to this special form of treatment, as the percentage of the unimproved cases is respectively 55.4, 75 and 60 per cent.

Pachymeningitis Hemorrhagica.—Apparently a true, progressive chronic hematoma of the dura has never been produced experimentally. The lesions seen after the subdural injection of blood, and in patients after operation, resemble the progressive lesion in appearance, but not in behavior. The Putnams state that experimental studies have so far added little to the knowledge of progressive subdural hemorrhage that has been gained by clinical and pathologic observation.

Acute Sydenham's Chorea.—The neuropathologic conditions in the case of acute Sydenham's chorea with acute endocarditis reported on by Ziegler were chromatolysis of practically all cells of the central nervous system, with swelling of nuclei and eccentric displacement; destruction of some neurons, especially the sixth nerve and calcarine cortex in which glia cells were much proliferated; neuronophagia; fatty deposits in the large cells of the motor cortex and pallidum; fat in the perivascular spaces, and petechial hemorrhages in a small area near the dorsomedial aspect of the restiform body of the medulla.

New Jersey Medical Society Journal, Orange

24: 153-212 (March) 1927

Mistaken Diagnoses of Gastric Ulcer. J. B. Deaver, Philadelphia.—p. 153.
Hyperthyroidism. E. Rose, Philadelphia.—p. 156.
Hyperthyroidism: Surgical Aspects. F. A. Bothe, Philadelphia.—p. 161.
Prevention of Pulmonary Complications in Diphtheria. J. R. Morrow, Ridgewood.—p. 163.
What New Jersey is Doing for Mentally Sick. M. A. Curry, Greystone Park.—p. 164.
Physician's Relationship to Workman's Compensation Law. A. F. McBride, Trenton.—p. 170.
Importance of Nasopharyngeal Infection. A. M. Elwell, Camden.—p. 172.

Oklahoma State Medical Association Journal, Muskogee

20: 56-85 (March) 1927

Glaucoma and General Practitioner. J. O. McReynolds, Dallas, Texas.—p. 56.
Care of Crippled Children in Oklahoma. E. D. McBride, Oklahoma City.—p. 60.
Perineal Prostatectomy. B. A. Hayes, Oklahoma City.—p. 62.
Acute Nontuberculous Iliopsoas Abscess. L. Long and L. D. Long, Oklahoma City.—p. 68.
Genito-Urinary Complications of Pregnancy. E. L. Yeakel, Oklahoma City.—p. 69.

Texas State Journal of Medicine, Fort Worth

22: 671-732 (March) 1927

*Angina Pectoris and Coronary Thrombosis. I. I. Lemann, New Orleans.—p. 680.
*Pulmonary Streptothricosis. M. D. Levy, Houston.—p. 683.
*Infection of Vagina by Vincent's Spirillae, Complicating Pregnancy and Puerperium. H. R. Robinson, Galveston.—p. 687.
Treatment of Hypothyroidism. A. C. Scott, Jr., Temple.—p. 689.
Lesions of Tongue. M. Owen, Rochester, Minn.—p. 693.
Development of Mechanics of Direct Laryngoscopy. D. T. Atkinson, San Antonio.—p. 696.
Tonsillectomy. F. D. Boyd, Fort Worth.—p. 699.
Hemorrhage Following Tonsillectomy. J. S. Bardin, Fort Worth.—p. 700.
Factors Helpful in Preventing Post-tonsillectomy Complications. E. C. Mead, Gainesville.—p. 705.
First Aid and After-Treatment of Minor Injuries. D. A. York, Del Rio.—p. 709.

Angina Pectoris and Coronary Thrombosis.—Lemann reports six cases occurring in physicians. He says that practically all the deaths from "acute indigestion" are due, in reality, to coronary infarction.

Pulmonary Streptothricosis.—Two cases are reported by Levy. A review of the literature has convinced him that many cases are unrecognized, and that what is now considered as one of the rarer pathologic conditions encountered in practice would be much commoner if sought for.

Streptococcus Infection of Vagina.—Robinson asserts that his is the only case of the kind on record. Cultures from the vaginal ulcers showed *Streptococcus viridans*. In addition to general treatment, local treatment consisted of hot fomentations to the vulva, neoarsphenamine in glycerin to the ulcers, and the occasional local application of silver nitrate, 10 per cent.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below Single case reports and trials of new drugs are usually omitted.

British Journal of Dermatology and Syphilis, London

39: 1 48 (Jan) 1927

*Herpetic Diseases. J. R. Perdrau —p 1.
Pathologic Relationships of Herpetic Diseases from Clinical Standpoint. A C Roxburgh —p 13
Contribution to Discussion on "Pathologic Relationships of Herpetic Diseases" S. P Bedson —p 26

Herpetic Diseases.—Perdrau holds that herpes simplex or febrilis, whatever its situation in the body, is caused by a living agent or virus, which lives normally a semisaprophytic existence on the mucous surfaces of most of us It is mildly *pathogenic to man,* and is probably responsible for at least some cases of zoster by a local invasion of the central nervous system Some cases of zoster are either caused by a similar action of the virus of varicella, or at least contain that virus in their characteristic skin lesion A different strain of the virus of herpes, very pathogenic to man, is the causative agent of epidemic encephalitis

39: 95 140 (March) 1927

Papular Urticaria Fifty Two Cases R Hallam —p 95
Chondrodermatitis Nodularis Chondrica Helicis A C Roxburgh —p 112
*Chronic Erythema ot Legs G. H Percival and C P Stewart —p 115.
Oidiomycosis of Nails J A Scott —p 119

Chronic Erythema and Serum Calcium.—Chemical observation has convinced Percival and Stewart that this condition does not supervene as a result of any deficiency in the serum calcium, that an increase in the level of this is not followed by any amelioration of the symptoms, and therefore that therapeutic measures directed toward raising the serum calcium are uncalled for

British Journal of Medical Psychology, London

6: 241 311 (March 8) 1927

Conception of Dissociation B Hart —p 241
Psychology of Religion E Jones —p 264
Psycho Analytic Theory of Psychoses J Rickman —p 270

British Journal of Ophthalmology, London

11: 97 144 (March) 1927

Coloboma at Macula (Both Eyes) E Clarke —p 97
Certain Abnormal Conditions of Macular Region Usually Classed as Colobomata I C Mann —p 99
Tonometry Tonometer with Convex Plunger H Schiotz —p 116
Combined Strabismus Hook and Muscle Clamp T H Butler —p 123.

British Medical Journal, London

1: 451 500 (March 12) 1927

Health Hazards in Cotton Industry W F Dearden —p. 451
*Acute Abdominal Emergencies Complicating Pregnancy and Puerperium J S Fairbairn —p 456
*Thyroid and Manganese Treatment in Pneumonia N. J Roche —p. 459.
Early Treatment of Poliomyelitis. V C Veitch —p 460.
Electrical Treatment of Paralysis of Poliomyelitis R J. Morris —p 461.
*Fulminating Myelogenous Leukemia A A Henderson —p 462
Method of Fixing Hooks to Adhesive Strapping R E Kelly.—p 462.
Diaphragmatic Hernia in Woman R H. Hunter —p 463
Uterine Myoma Complicating Pregnancy. V L Ferguson —p 463.
Strangulated Hernia in Pseudohermaphrodite G. Ralston —p 463

Abdominal Emergencies Complicating Pregnancy.—The abdominal symptoms which, in Fairbairn's opinion, may arise either as part of a disorder of metabolism—the toxemia ot pregnancy—or from mechanical effects or abnormalities of the pregnancy or reproductive tract are vomiting, jaundice, abdominal pain and distention, and appendicitis. The treatment should be the same as it would be if there were no pregnancy, save that the presence of a pregnancy weights the scales against expectant treatment. Interference with a pregnancy is justifiable only if some operative procedure is contemplated which the pregnant uterus would make more difficult of performance.

Thyroid and Manganese Treatment of Pneumonia.—Roche confirms the good effects accruing from the rectal injection of permanganate solution in the treatment of pneumonia. The solution must be fresh and hot, of a strength of 2 grains to 24 ounces. From 3 to 4 ounces of this solution are injected three times each twelve hours.

Fulminating Myelogenous Leukemia.—The first symptom in Henderson's case was deafness. The tonsils were large and flabby but not inflamed. The patient complained of having catarrh in the nasopharynx, but said that otherwise he felt as fit as ever. The whole of the lymphoid tissue of the nasopharynx was in a state of hyperplasia. The deafness was mechanical, because of the blocking of the eustachian tubes by this. Only a small gland in the left axilla was palpable The spleen was not palpable. A little later Henderson found a swollen submaxillary gland, and the gums looked a little red. That evening for the first time the temperature was raised. The next day the gums were more swollen and looked a little bluish, the submaxillary glands were larger, and there was some swelling beneath the tongue. Then the gums began to bleed; hematuria was noted, and the temperature rose to 102.4 F. at night. A blood count showed 5,250,000 red cells and 200,000 whites. There were numerous myelocytes. The condition now became rapidly worse The deafness increased, the man became pale and the face was more swollen; the evening temperature was generally above 102 F. Inside of two days the spleen was two fingerbreadths below the costal margin. The gums ceased to bleed and the hematuria also stopped. The mouth was intensely uncomfortable. The patient was unable to sleep for more than ten minutes at a time, chiefly on this account. In a period of nine days the erythrocytes fell to 1,900,000, and the leukocytes increased to 206,000, 94 per cent being myelocytes The man died in delirium thirty-two days after Henderson first saw him.

Edinburgh Medical Journal

34: 61 120 (Feb) 1927

Mental Deficiency. R. D Clarkson —p 61.
Splanchnic Analgesia W Q Wood —p 76
Glandular Fever in Children J Burnet —p 89.
Calcium Metabolism in Disease. C P Stewart and G H. Percival —p 95

34: 121 192 (March) 1927

Treatment of Tuberculosis: Sanocrysin. R. Philip —p 121.
*Examination of Cadavers for Tuberculosis T. R. R Todd —p. 127.
Tuberculosis Problem in United States. A. F. Hewat —p. 136.

Incidence of Tuberculous Lesions in Cadavers.—Tuberculous lesions were found by Todd in 69 per cent of 404 cadavers examined. In 50 per cent of cases, calcareous lesions were found; in 9 per cent the lesions were quiescent, and in 9 per cent they were active. The lungs and tracheobronchial glands were the organs most frequently involved in adults Todd says that tuberculosis of the kidney is always a late manifestation and does not heal Tuberculosis is less frequent in the subjects of anthracosis than in the general population There is evidence of a marked tuberculization of an abdominal type occurring during the early years, and of a later and more constant tuberculization affecting the lungs and bronchial glands in adult life. There is a marked tendency for the abdominal lesions to disappear.

Glasgow Medical Journal

107: 129 192 (March) 1927

Modern Aspects of Syphilis W. H. Brown —p. 129.
Syphilis of Eye. E. J Primrose —p 164.

Indian Medical Gazette, Calcutta

61: 581 638 (Dec) 1926

Yaws in Burma. G G Jolly —p 581.
Phthisis Treated by Sanocrysin at Lucknow. C A. Sprawson.—p 585.
*Marris's Atropine Test in Enteric Fevers P. C. Chakravarty —p 588.
Gastro Enteritis in Alipuram Jail, Bellary. V. J Lopez —p. 590.
Mercurosal in Syphilis R J. L Sladen —p 593
*Infantile Cirrhosis of Liver A S V Iyer —p. 594
Treatment of Cholera with Essential Oils S R Bharati —p. 596
Blackwater Fever Successfully Treated by Injections of Quinine Bihydrochloride and Normal Horse Serum. S M. Roy —p 597
Hematuria with Pregnancy in Retroverted Uterus. Jamal ud din —p 598.
Intestinal Hemorrhage in Newly Born Infant B. Singh —p. 598.
Hematuria Relieved After Removal of Cystic Tumor of Great Omentum. B S. Rau —p 599
Case of Acute Glossitis. N. M. Dave —p 600.
Effect of Prolonged Application of Cold on Eye. K. E. Madan.—p. 600.

Wander Spleen: Splenectomy. J. B. Vaidya.—p. 601.
Perineal Excision of Anorectal Cancer. S. C. Das Gupta.—p. 602.
Two Cases of Acute Lethargic Encephalitis. G. Stapleton.—p. 604.
Case of Cerebral Malaria. A. B. D. Castro.—p. 605.
Artificial Pneumothorax Treatment of Pulmonary Tuberculosis. Y. G. Shrikhande.—p. 608.

Atropine Test in Typhoid.—Chakravarty regards the atropine test of typhoid as being very useful in its results, although it is not as reliable as a positive blood culture. When facilities for elaborate laboratory analyses are not available, the test can give dependable results, especially in a puzzling case.

Infantile Cirrhosis of Liver.—During a period of four years, Iyer has treated fifty-nine cases of infantile cirrhosis of the liver in its various stages. Syphilis in the parents was traced in two cases only. Of these fifty-nine cases, three were so far advanced that the patients died within a week of treatment, and three patients could not be traced later. Of the remainder, twenty-six were cured. The treatment consisted of fresh goat's milk, roasted ripe bananas and mercury with chalk, from ½ to 1½ grains (0.032 to 0.097 Gm.) twice daily, combined with compound rhubarb powder.

International Journal of Psycho-Analysis, London

8: 1-131 (Jan.) 1927

Unusual Form of Perversion. J. Glover.—p. 10.
Psychologic Principles of Infant Analysis. M. Klein.—p. 25.
Does Masochism Necessarily Imply Existence of Death Instinct? N. J. Symons.—p. 38.
Psycho-Analytic Notes on Negation. L. S. Penrose.—p. 47.
Father Pleads for Death of His Son. M. P. Taylor.—p. 53.
Oral Erotic Components of Stammering. I. Coriat.—p. 56.
Mantle Symbol. E. Jones.—p. 63.
Case of Stammering in Child. M. N. Searl.—p. 65.
On Throwing Dishes from Window in Dreams. N. J. Symons.—p. 69.
Psycho-Analysis of War Neuroses. P. G. Dane.—p. 72.
Interesting Invented "Portmanteau" Word. B. Low.—p. 73.
Penis-Feces-Child. S. Isaacs.—p. 74.

Irish Journal of Medical Science, Dublin

6: 97-144 (March) 1927

*Renal Hematuria. A. Ball.—p. 101.
*Thirty-Six Years' Work at Rotunda Hospital. D. G. Madill.—p. 108.
Riddle of Life. R. A. Q. O'Meara.—p. 116.
Observations on Scarlatina. J. H. Pollack.—p. 125.

Renal Hematuria.—Ball emphasizes the point that when the bleeding has been definitely located as coming from one kidney, that kidney should unquestionably be explored by operation, the function of the other kidney and the total power of excretion having been estimated, so that, if necessary, nephrectomy can be performed without hesitation.

Mortality at Rotunda Hospital.—Madill shows that from 1910 to 1914 there were 8,282 deliveries with a mortality of 0.61 per cent. From 1919 to 1925, inclusive, there were 10,750 deliveries with a mortality of 0.6 per cent. Most of the deaths were caused by placenta praevia.

Journal of Laryngology and Otology, Edinburgh

42: 149-220 (March) 1927

Dermatitis of External Auditory Meatus. D. M'Kenzie.—p. 149.
Common Inflammatory Affections of Skin of External Ear. A. M. H. Gray.—p. 155.
Intractable Forms of Dermatitis of External Ear in Cases of Chronic Suppurative Otitis Media. F. C. Ormerod.—p. 165.
Otosclerosis Associated with Blue Sclerotics and Osteogenesis Imperfecta. F. J. Cleminson.—p. 168.
Ossicles in Middle Ear Suppuration: Size in Children and Adults. J. A. Keen.—p. 174.
Paths of Infection to Brain, Meninges and Venous Blood Sinuses from Neighboring Peripheral Foci of Inflammation. A. L. Turner and F. E. Reynolds.—p. 181.
Case of Chronic Frontal and Antral Sinusitis Due to Rhinolith. A. J. Wright.—p. 192.

Journal of State Medicine, London

35: 125-186 (March) 1927

Minimal Lethal Dose. W. W. C. Topley.—p. 125.
Common Mistakes in Teaching of Physical Training. H. B. Hill.—p. 147.
Prevention and Control of Rheumatoid or Atrophic Arthritis. L. J. Llewellyn.—p. 156.
Urban Tuberculous Workshops. G. W. Allen.—p. 169.

Journal of Tropical Medicine and Hygiene, London

30: 57-72 (March 1) 1927

*Carbohydrate Metabolism in Malaria. G. de M. Rudolf and R. G. B. Marsh.—p. 57.
*Effect on Liver Temperature of Lowering Intragastric Temperature. R. W. Mendelson.—p. 64.

Carbohydrate Metabolism in Malaria.—In some cases of naturally acquired malaria, a disturbance of the carbohydrate metabolism has been reported. To endeavor to determine whether the malaria that is artificially inoculated has a tendency to produce glycosuria, the urines of thirty-nine persons with general paralysis and of four with dementia praecox, previously treated with malaria, were each examined by Rudolf and Marsh for sugar. When single specimens of urine from each case were examined, glycosuria was found in 0.9 per cent of untreated general paralysis, but in 15.4 per cent of those patients who had been treated with benign tertian malaria. Glycosuria was present in 90 per cent of treated general paralytic persons when the urine was examined on numerous occasions. Blood sugar curves following the ingestion of glucose tended to approach the normal more after inoculation with malaria than before, and also between febrile paroxysms, but these observations were made in only two cases. During malarial therapy, the blood sugar was found to vary inversely with the temperature. The administration of glucose during malarial pyrexia did not produce an obvious change as regards the objective signs, but apparently brought relief of the subjective symptoms. No effect on the parasites was observed. The administration of insulin during malarial therapy produced indefinite effects as regards the number of parasites, but in 60 per cent of instances the fever terminated after insulin had been given. Relapses followed, but differed from those following small doses of quinine in being of a low degree of pyrexia. The lowering of the blood sugar would not appear to be the cause of the cessation of the fever.

Effect on Liver Temperature of Lowering Intragastric Temperature.—"Chill on the liver" is a common complaint of Europeans living in the tropics. So fearful are many tropical Europeans of "chilling" their abdominal organs, with special reference to the liver, that they often wear what is locally known as a "cholera belt." In an effort to determine the immediate effect on the liver temperature by filling the stomach with ice water, experiments were undertaken by Mendelson. Dogs were used. The stomach was exposed through a short incision. Thermometers were placed in the quadrate lobe of the liver, in the fundus of the stomach cavity, and in a pocket between the muscularis and the submucosa. A glass tube with rubber attachment was inserted into the cardiac end as a means of introducing ice water. Readings were taken every thirty seconds, after the fluid had been introduced, for a period of half an hour. The average drop in rectal temperature was 2.45 C.; stomach cavity temperature was 16.04 C.; stomach wall temperature was 10.55 C.; liver temperature was 2.25 C. The question arises, Will a drop of 2.45 C. in the liver temperature produce an effect sufficient to prevent the liver from carrying on its normal functions?

Kenya Medical Journal, Nairobi, East Africa

3: 301-330 (Feb.) 1927

Infant Feeding and Rickets. A. J. Jex-Blake.—p. 302.
Tropical Abscess of Liver. C. F. Shelton.—p. 315.

Lancet, London

1: 269-320 (Feb. 5) 1927

Voluntary Hospital and Its Future. R. G. Hogarth.—p. 269.
Pending Changes in Administration of Vaccination. J. Bennett.—p. 271.
*Blackwater Fever in London. P. Manson-Bahr and E. G. Sayers.—p. 273.
*Diverticulitis. L. R. Fifield.—p. 277.
*Dick Test and Active Immunization Against Scarlet Fever. W. T. Benson and G. W. Simpson.—p. 281.
Testicular Grafting. H. Bailey.—p. 284.

Blackwater Fever in London.—Fourteen cases of blackwater fever, which developed in London, occurred in Europeans of pure descent. However, they had all lived in Africa for from one to five years. One of the patients was only

3½ years of age. The mortality in this series was 50 per cent. The relationship of hemoglobinuria to malaria was carefully investigated by Manson-Bahr and Sayers, and the results are in entire agreement with those of Thomson.

Diverticulitis.—Fifield's paper is based on a study of 218 post mortems and fifty-two clinical cases of diverticulitis. There were eleven cases of abscess (21 per cent); four were in the left iliac fossa, one in the left loin, three in Douglas's pouch, one in the right iliac fossa, and two in the right lumbar region. General peritonitis occurred in twelve cases, in three of which it complicated acute intestinal obstruction. Intestinal obstruction was generally chronic with occasional subacute attacks. Vesicocolic fistula was present in four cases. Tumor was present in twenty-three cases. Constipation was present in the majority, occasionally alternated with diarrhea.

Active Immunization Against Scarlet Fever.—The nursing staff of a large hospital for infectious diseases was made the subject of a study by Benson and Simpson. In 1925 there were fifteen cases of scarlet fever among the staff, an incidence of 9.31 per cent. Measures for active immunization against the disease were instituted. By injection, at intervals of from five to fourteen days, of gradually increasing doses of scarlet fever toxin, it was possible to render the majority of Dick positive reactors Dick negative. In 1926, the incidence of scarlatina among the staff was only 3.52 per cent, as against 9.31 per cent in the previous year and 8.59 per cent in 1924.

1: 529-582 (March 12) 1927

*Cardiac Dyspnea. F. R. Fraser.—p. 529.
Surgery of Spinal Cord and Its Membranes. D. Armour.—p. 533.
*Carbohydrate Tolerance in Overweight and Obesity. R. S. Allison.—p. 537.
*Removal of Metatarsal Head for Hallux Valgus and Hallux Rigidus. G. Perkins.—p. 540.
*Spontaneous Subarachnoid Hemorrhage. H. Barber and H. C. C. Taylor.—p. 541.
Case of Mumps Encephalitis. H. Bedingfield.—p. 543.
Case of Gonococcal Arthritis with Pathologic Dislocation of Hip Joint. E. H. Schwab.—p. 544.
*Metastatic Carcinoma of Choroid. R. Thomas and A. F. Sladden.—p. 544.

Cardiac Dyspnea.—Fraser asserts that oxygen deficiency in the arterial blood or deficient oxygenation of the blood in the lungs is not present with any consistency in cases of cardiac dyspnea. It is found: (*a*) when pulmonary disease is present in addition to heart failure; (*b*) in the presence of gross congestion and edema of the lungs; and (*c*) in feeble or dying patients. If, then, there is a cause of the hyperpnea and dyspnea of heart failure common to all cases, it cannot be deficient oxygenation of the blood in the lungs.

Carbohydrate Tolerance in Obesity.—One hundred and twenty-one cases of obesity, occurring in adult life and arising from extrinsic causes, such as overeating, lack of adequate exercise, or a combination of both, are analyzed by Allison. So far as possible, cases of endocrine disturbance have been excluded. An attempt has been made to study carbohydrate tolerance in this type of obesity, and to inquire into the relationship which is known to exist between obesity and diabetes. Glycosuria was present in seventeen cases only, or in 14 per cent. The remaining 104 patients were sugar free, and did not show any outward signs of a diabetic tendency. Sugar tolerance tests were performed on twenty patients, including eight of those who were known to have glycosuria. From a review of these it would appear that, though some individuals much overweight have a normal sugar tolerance, many display a partial inability to deal with carbohydrate, and especially those who are known to have glycosuria. In those who show decreased sugar tolerance, an improvement in tolerance, or even a return to normal, may take place if weight is reduced. There is evidence to prove that the decreased carbohydrate tolerance is dependent on the length of time the obesity has existed unchecked.

Treatment of Hallux Valgus.—Perkins says that the operation of excision of the head of the metatarsal can be relied on always and completely to cure symptoms due to hallux valgus and to hallux rigidus. It does not relieve metatarsalgia—in fact, it often makes it worse. It is suggested that the existing metatarsalgia should be treated at the time of the operation by straightening the toes and plantar-flexing the metatarsophalangeal joints, and that further metatarsalgia be avoided by ensuring that the arc of movement of the big toe after the operation is the ideal one; i. e., from 5 degrees of plantar flexion to 10 degrees of dorsiflexion.

Spontaneous Subarachnoid Hemorrhage.—The four patients whose cases are reported by Barber and Taylor were aged 52, 59, 13 and 33 years, respectively. In two, the condition was due to congenital aneurysm, and in two, to atheroma. Three patients gave a negative Wassermann reaction. The symptoms of headache, vomiting, stiffness of the neck, and some rigidity of the limbs were present in every case. No cranial nerve palsies were observed, but some degree of retinal change was present in two cases; the most striking one showed very definite hemorrhages. Lumbar puncture in all four cases revealed cerebrospinal fluid under pressure which was deeply colored with blood. When allowed to settle there was some coloration in the upper part of the fluid, showing that the blood was not an accidental contamination. No organisms could be obtained.

Metastatic Carcinoma of Choroid.—Thomas and Sladden report a case of bilateral metastatic carcinoma of the eyes involving the choroid. The primary growth was in the mediastinum. Small metastases were scattered throughout both lungs, in the liver and in glands around the abdominal aorta.

Medical Journal of Australia, Sydney

1: 209-254 (Feb. 12) 1927

*Anatomy of Female Pelvis. F. A. Maguire.—p. 209.
Purpura Hemorrhagica. H. Shannon.—p. 241.
Rodent Ulcer of Lower Eyelid Treated by Diathermy. G. A. Pockley and V. M. Coppleson.—p. 241.

Anatomy of Female Pelvis.—Maguire dissected and sectioned sixteen female pelves and makes a very full report of his observations. The illustrations accompanying his report are excellent.

1: 255-286 (Feb. 19) 1927

Mental Deficiency. J. Bostock.—p. 255.
*Treatment of Peritonitis. W. R. Groves.—p. 260.
*Treatment of Thyroid Enlargement. H. G. Loughran.—p. 263.
Twenty-Four Years of Country Practice. W. R. Groves.—p. 265.
Argyll-Robertson Pupil. H. J. Wilkinson.—p. 267.
Use of "Novasurol" as Diuretic in Edema of Cardiac Failure. A. E. R. White and D. Zacharin.—p. 273.
Case of Concealed Accidental Hemorrhage. H. A. Ridler.—p. 273.
Ulceromembranous Stomatitis. J. H. Downing.—p. 273.
Case of Scurvy. E. W. Frecker.—p. 274.

Treatment of Peritonitis.—Groves endorses what he terms Hughes' method of treatment of peritonitis—inhibiting peristalsis, splinting the bowels with morphine, water in small quantities frequently, if no vomiting occurs, and Fowler's position. The focus of infection is removed, if possible. When he operates, instead of closing the aponeurosis with catgut and inserting "sneezers" of silkworm gut, Groves sutures the aponeurosis with a running silkworm gut suture secured beyond each end of the wound to a piece of thin rubber tubing, coapting the skin edges with fine catgut. If infection of the wound occurs, the silkworm gut need not be disturbed. If one end of the suture is cut twenty-four hours before removal, it is withdrawn quite readily.

Treatment of Thyroid Involvement.—Loughran reports good results in the treatment of thyroid enlargement, including exophthalmic goiter, by injections of quinine and urea hydrochloride into the gland. He has treated twenty-two patients. Of these, seven had a condition which was definitely exophthalmic goiter. Of these seven, six made a complete recovery; one died of pneumonia while under treatment. The pneumonia supervened on an attack of influenza and had apparently nothing to do with the injections. Of the remaining fifteen patients, three had some symptoms of hyperthyroidism and would probably have become exophthalmic if not treated. The condition in all the others cleared up.

1: 287-320 (Feb. 26) 1927

*Psychoses of Puerperium. R. S. Ellery.—p. 287.
Hospital Practice. A. E. Brown.—p. 292.
Stammering as Psychoneurosis. T. G. Leary.—p. 299.
Radiotherapy. H. Flecker.—p. 302.
*Intussusception. R. D. M. Hall.—p. 304.

Psychoses of Puerperium.—Among the eighty cases of psychoses analyzed by Ellery were thirty-nine cases of acute confusional insanity; twenty-seven cases of manic-depressive psychosis; twenty-one cases of dementia praecox and two cases of paraphrenia. There is said not to be any particular puerperal psychosis. Any psychosis may develop during the puerperium, in which case the mental symptoms may be colored by the physical condition. The incidence of definite insanity in the patient's family was 47 per cent. Confusional insanity offers the best prognosis. Of these patients, 49 per cent recovered.

Ileocolic Intussusception.—The intussusception reported by Hall was of the ileocolic variety. It started from a long Meckel's diverticulum which had plainly invaginated itself into the ileum, and then the ileum, in its turn, had invaginated the cecum.

Practitioner, London

118: 69-136 (Feb.) 1927

*Sex Incidence of Diseases in Upper Air and Food Passages. S. Thomson.—p. 69.
Gastrectomy in Gastric Ulcer. J. Nicolysen.—p. 78.
Rheumatoid Arthritis. J. B. Alexander.—p. 84.
*Ambulatory Treatment of Knee Joint in Chronic Arthritis. W. G. Macdonald.—p. 93.
Common Traumatic Affections of the Knee Joint. A. G. T. Fisher.—p. 97.
Brain Abscess as Complication of Middle Ear Suppuration. J. Harper.—p. 107.
Times for Blood Sugar Tests in Diagnosis and Treatment of Diabetes. R. D. Lawrence.—p. 114.
Thyroid, Parathyroids and Liver: Their Hormone Influences on Detoxication. H. R. Harrower.—p. 125.

Sex Incidence in Diseases of Throat and Nose.—The basis of Thomson's paper is the supposed relationship between the genital organs and the throat and nose. He mentions such things as this: The boy at puberty is more subject to spontaneous epistaxis than the girl at the same period. Ozena is much more frequent in women, and is more marked and offensive at the menstrual periods. Men are more liable to acute catarrhal laryngitis than are women, and "the influence of sex is very marked in cases of chronic laryngitis, adult males being by far the more common sufferers." The rare condition known as "congenital laryngeal stridor" is said to be more frequently encountered in male infants. In the pharynx, malignant disease in the female is rare, as far as the tongue, fauces, soft palate and tonsils are concerned. Any new growth in the pharynx is rare; when one occurs, it is more apt to be malignant than innocent, and it is more likely to be encountered in a male than a female. There is no manner of doubt as to the much greater frequency with which cancer, especially in its intrinsic form, attacks the male larynx. Thomson has performed laryngofissure in some eighty cases of epithelioma of the endolarynx. The majority of cases of cancer of the gullet occur in men who have passed middle age. The hypopharynx (i. e., postcricoid area) is much more frequently attacked in females than in males, and at an earlier age. Traveling downward from this region to the stomach, cancer in women goes diminuendo, while in men it is crescendo. Thomson is inclined to believe that changed social conditions, women having become bread earners instead of bread bakers, have adduced evidence which will controvert the older belief. But, why should a woman suffer so rarely from cancer of the larynx or of the esophagus, and be such a relatively frequent victim of that disease, often at a relatively early age, in the pharyngolarynx (i. e., postcricoid cancer)?

Treatment of Chronic Arthritis of Knee Joint.—Macdonald favors extension by traction, followed by the application of a plaster cast. The cast is removed after a few weeks and a new one applied after another attempt at further extension has been made.

South Africa Medical Association Journal, Cape Town

1: 49-72 (Feb. 12) 1927

Plague in Northwest of Cape Province. J. H. H. Pirie and W. A. Murray.—p. 50.

Tubercle, London

8: 253-300 (March) 1927

Diagnosis of Intrathoracic Tumors. G. B. Price.—p. 253.
Chest Neoplasms. J. E. A. Lynham.—p. 262.
Surgery of Chest Tumors. A. T. Edwards.—p. 267.

Sei-I-Kwai Medical Journal, Tokyo

46: 1-12 (Feb.) 1927

Morphologic Changes of Pavement Epithelium of Albino Rats Fed on Vitamin A Deficient Diet. Y. Fujimaki, T. Kimura, Y. Wada and S. Shimada.—p. 1.
*Blood Picture in Sarcoma Bearing Rabbits. K. Oba.—p. 7.
One Degenerated Form of Shiga-Dysentery Bacillus Caused by Bacteriophage. K. Kobayashi.—p. 8.
Nature of Agglutination of Organism Grown on Medium with Electrolytes, Specially Metallic Salts. Y. Suzuki.—p. 9.
Malaria Treatment of General Paralysis. S. Hosomi and M. Yoshino.—p. 10.

Blood Picture in Sarcoma.—Oba says that in the tumor bearing rabbits the erythrocytes were slightly decreased, and leukocytes were increased. Lymphocytes were decreased in percentage, while an absolute number of them showed a slight reduction or remained at normal. Eosinophil leukocytes showed a marked increase.

Bulletin de l'Académie de Médecine, Paris

97: 285-328 (March 8) 1927

Bacteriology of Pulmonary Gangrene. F. Bezançon and E. Etchegoin.—p. 294.
Two New Cases of Pulmonary Gangrene. H. Vincent.—p. 303.
*Resistence of Blood Corpuscles Treated with Carbon Monoxide. R. Douris.—p. 317.
Acidity of Ocular Humors in Traumatic Cataract. H. Labbé and F. Lavagna.—p. 319.
Mode of Action of Mineral Waters. E. Feuillié.—p. 320.
The Initial Lesions of Cancer of the Esophagus. J. Guisez.—p. 325.

97: 328-376 (March 15) 1927

Acid-Base Balance and Treatment with Alkalis. R. Glénard et al.—p. 367.
Examination of Gastric Contents in the Bacteriologic Diagnosis of Pulmonary Tuberculosis. P. F. Armand-Delille and J. Vibert.—p. 373.

97: 377-388 (March 22) 1927

Medical Treatment of Glaucoma. C. Abadie.—p. 380.
Pharmacodynamic Action of Mineral Waters. P. L. Violle and P. Dufourt.—p. 381.
Sodium Hypochlorite in Assanation of Sewage. E. Techoueyres and Pillement.—p. 385.

Resistance of Blood Corpuscles Exposed to the Action of Carbon Monoxide.—Douris' researches were conducted on the blood corpuscles of man and of the sheep. Resistance to the hemolytic action of distilled water appeared to be lower in carboxyhemoglobin than in hemoglobin, from which it was formed under the action of carbon monoxide. After the total carbon monoxide had been eliminated from the corpuscles by a current of air or oxygen, the resistance of corpuscles returned to normal. The fact testifies to the efficiency of oxygen in treatment of carbon monoxide poisoning. The hemolytic action of specific antiserums proved to be the same on carboxyhemoglobin as on hemoglobin.

Bulletins de la Société Médicale des Hôpitaux, Paris

51: 269-304 (March 10) 1927

Necrosis and Incomplete Obliteration of Arteries. C. Lian et al.—p. 269.
*Factors of Various Forms of Influenza. M. Renaud.—p. 278.
Secondary Factors in Infectious Diseases. M. Renaud.—p. 279.
Note on Therapeutic Value of Purified Diphtheria Antiserum. J. Cathala.—p. 281.
Epidemiology of Influenza. P. Jacquet.—p. 283.
Treatment of Splenomegalia in Tardy Congenital Syphilis. G. Milian.—p. 285.
Insufficiency of Testes and Sclerosis of the Spinal Cord. P. Lechelle et al.—p. 289.
Syphilis as Factor of Albuminuria in Pregnancy. M. Pinard and P. Vernier.—p. 293.
Aleukemic Leukoblastomatosis. A. Clerc et al.—p. 295.

Factors Determining the Forms of Influenza.—In Renaud's opinion, the pulmonary lesions observed in influenza do not represent a special form of the disease. They are the result of a secondary infection, favored by insufficient care or an intercurrent cold. Moreover, an epidemic of pneumococcus or streptococcus diseases may coincide with an epidemic of influenza. Early treatment with proper hygienic and dietetic care can avert the secondary phenomena of influenza.

51: 305-336 (March 17) 1927

Note on Influenza in the Elderly. Brelet.—p. 309.
Muscular Atrophy in Arthritis. O. Crouzon et al.—p. 311.
Aphonic Mitral Stenosis. L. Babonneix and J. Mornet.—p. 315.
*Grave Anemia from Sulpharsphenamine. P. Emile-Weil and Isch-Wall.—p. 319.
Angina Pectoris Improved After Hemorrhoidal Hemorrhage. J. C. Mussio-Fournier and H. Figari Legrand.—p. 325.
Asthma, Quincke's Edema and Hydatid Cyst of the Liver. J. C. Mussio-Fournier and C. Seoane.—p. 327.
Buerger's Disease Versus Juvenile Arteritis. A. C. Guillaume.—p. 329.
Immunity Against Dysentery a Form of Antitoxic Immunity. C. Zoeller.—p. 332.

Case of Grave Anemia from Arsphenamine.—Emile-Weil and Isch-Wall report a case of grave anemia, which developed after arsenical treatment, in a man with tabes. The arsenical treatment had consisted of three series of intramuscular injections of sulpharsphenamine. One series included six injections, each of 0.18 Gm. In this case, as well as in two similar cases, the anemia yielded to transfusions of blood. It is yet uncertain whether this anemia is caused by the benzene or by the sulphur. It is possible that the patient's diathesis played an important part in the pathogenesis.

Paris Médical

63: 261-288 (March 19) 1927

*Vichy Water and Antianaphylaxis. F. Arloing and P. Vauthey —p. 261
Insulin and Alkaline Mineral Waters in Treatment of Diabetes. Ray et al —p. 270.
Is Rheumatic Disease of the Heart a Contraindication to Mineral Water Treatment? A. Piatot.—p. 276
The *p*H of Flowers, Hay-Fever and Mineral Water Treatment. G Billard —p. 283.

Antianaphylactic Action of Mineral Waters.—Arloing and Vauthey's experiments consisted in the following: Guinea-pigs were sensitized by horse serum introduced into the peritoneal cavity, and then injected with Vichy water by way of the skin, during twenty days. One day after the last injection, the animals were injected with horse serum in the cranium. The anaphylactic shock was considerably attenuated or even suppressed. The results were the same when ovalbumin was used instead of horse serum. The effect of artificial alkaline solution was much weaker. There was further evidence that the antianaphylactic property is much higher in fresh water than in stored water. For a favorable therapeutic effect, a daily dose of from 400 to 600 cc. of the water is required. The Vichy water treatment should be continued for three weeks, and repeated every six months or every year. It is possible that in persons with disturbance of the vegetative system, Vichy water induces a series of minimal shocks, resulting in desensitization; or it modifies the blood serum, increasing its viscosity and reducing the surface tension. Vichy water is indicated especially in asthma, spasmodic coryza, paroxysmal nasal hydrorrhea, hay-fever, spasmodic tracheobronchitis, migraine, urticaria, eczema, attacks of gout and in biliary colics.

Presse Médicale, Paris

35: 305-320 (March 9) 1927

*Coloring-Matter Tests in Liver Diseases. N. Fiessinger et al.—p. 305.
Surgical Removal of Maxillary Nerve in Neuralgia. G. Dutheillet de Lamothe.—p. 307.
Spino-Umbilical Incision in Appendectomy. Phocas.—p. 310.

Retention of Coloring Matter in the Course of Liver Diseases.—One of the two tests used by Fiessinger, Walter and Olivier simultaneously in patients with liver disease consisted in measuring the bilirubin of the blood. The other determined the amount of rose bengal remaining in the blood, forty-five minutes after intravenous injection. The retention of bilirubin paralleled that of the dye in cases accompanied by jaundice. Retention of the dye was greater than that of the biliary pigment in cirrhosis with or without ascites. This pointed always to a grave lesion of the hepatic parenchyma. Retention of bilirubin was greater than that of the dye in infectious jaundice tending to recovery. Here elimination of the dye may become normal, while that of bilirubin is still impaired. This is due to the fact that bilirubin saturates the tissues; while the contact of the rose bengal with the tissues is a superficial one.

35: 321-336 (March 12) 1927

Retention and Oxidation of Sulphur in the Liver. M. Loeper et al.—p. 321.
Operative Technic for Suprarenalectomy. J. Hertz.—p. 323.

35: 337-352 (March 16) 1927

Sensorial Plus Affective Reflectivity and Repercussivity. André-Thomas.—p. 337.
*Ultraviolet Rays in Diagnosis of Favus. P. Vigne.—p. 339.
Vaccine Treatment of Bronchopneumonia. J. Samsoen and S. Dreyfus.—p. 341.

Ultraviolet Rays in Diagnosis of Favus.—Vigne advocates the use of ultraviolet rays for detection of favus in dubious cases. A mercury vapor lamp, provided with a fluorescent screen in the center, serves the purpose. In case of favus, luminous patches appear on a dark ground. Infected hairs located on the patches are fluorescent. Fluorescence is conserved for more than a year in epilated hair. Microscopic examination and cultures confirmed the fact that only fluorescent hairs are the seat of spores. Ultraviolet ray examination was used in a children's institute in which favus was endemic. In thirty cases, the diagnosis of favus could be established in the phase of development of the disease, when even an experienced eye was unable to detect anything abnormal.

35: 353-368 (March 19) 1927

Vaccination of Guinea Pigs Against Human Tuberculosis. J. Auclair.—p. 353.
*Hot Water Irrigations in Treatment of Tuberculous Abscesses. H. L. Rocher —p. 356.

Hot Water in Treatment of Tuberculous Abscesses.—Rocher pierces the abscess with a trocar. After all the pus has been withdrawn, he introduces hot water (60 C.). The washing out of the pocket is continued for from three to five minutes, the temperature of the water being maintained at 60 C Then Michel's clamp is applied to the aperture in the skin and kept on for two days. A dressing completes the compression. Pain caused by the treatment is easily tolerated by adults. Never were by-effects observed. The method is advisable in abscesses of the glands, joints or bones, especially in Pott's disease and tuberculosis of the hip joint. Sometimes one lavage is followed by cure of the abscess; usually the treatment must be repeated.

Revista Médica Latino-Americana, Buenos Aires

12: 457-604 (Jan.) 1927

Bone Marrow Biopsy in Hemolytic Jaundice. P. Escudero and M. E. Varela.—p. 457.
*Bone Marrow Biopsy in the Diagnosis of Pernicious Anemia. P. Escudero and M. E. Varela.—p. 464.
Cerebral Topography. C. Jakob.—p. 467.
Primary Tuberculous Lesion in the Lung. P. M. Barlaro.—p. 479.
*Spinal Fluid in Syphilis. L. de Marval.—p. 505.
*Treatment of Vincent's Angina. E. Casterán and J. Del Piano.—p. 519.
The Galvanic Current in Diseases of the Urethra. J. J. Gazzolo.—p. 526.
Course of Torsion Dystonia. A. S. Marotta.—p. 538.
Entozoon Infestation in Dogs. F. Greenway.—p. 561.

The Bone Marrow in the Diagnosis of Pernicious Anemia.—Biopsy of the bone marrow of the tibia and sternum, state Escudero and Varela, is of great value in the study of blood cytology. In pernicious anemia quantities of megaloblasts are found in all phases of development. A biopsy of bone marrow indicates also the extent of the reaction of the erythrocytes and the leukocytes, as well as the erythrophagic activity of the reticulo-endothelial system. This information may be of service both in prognosis and in treatment.

Spinal Fluid in Syphilis.—De Marvel's study includes 134 cases. The only biologic test baring the syphilitic nature of a clinical nervous picture is the Wassermann reaction. Tuberculous meningitis, multiple sclerosis and horse trypanosomiasis may yield positive results with the other tests. Of the globulin tests, Pandy's proved the most sensitive. A negative Pandy reaction rules out meningeal inflammation, syphilitic or otherwise. Whenever the spinal Wassermann reaction proved positive, the globulin tests yielded parallel results A residual lymphocytosis in a clinically cured case of syphilis suggests the presence of latent foci A clear or slightly cloudy fluid with preponderance of lymphoid elements speaks for tuberculosis against syphilis All the thirty-nine patients with general paralysis exhibited a typical spinal fluid picture, with the exception of pleocytosis in a few

Bismuth in Vincent's Angina—In fourteen cases of Vincent's angina, bismuth, as recommended by Mangabeira and Albernaz, proved efficient All were healed in two or three days The treatment comprised one or two intramuscular injections of 2 cc each, every other day and topical applications twice a day at one-third strength

Semana Médica, Buenos Aires

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Corticopleuritis in Children T A Tonina and O J Montanaro —p 385
*Myalgia and Arthralgia Caused by Bismuth J Destefano and R S Aguirre —p 401
Poisoning by Potassium Cyanide and Hydrocyanic Acid O Calcagno —p 402
Calcium Chloride R C Bizzozero —p 408
*Precipitation Tests in Diagnosis of Syphilis R A Alcaraz —p 413
Kinesitherapy of Gonorrheal Arthritis O C Fernandez —p 415
Treatment of Puerperal Endometritis A F Dengler —p 425
New Method of Elementary Organic Analysis J A Sanchez —p 427
Vitiligo and Exophthalmic Goiter L E Pierini and J A Herrera —p 434
Open Treatment of Pseudo Arthritis R Sole —p 437
Sodium Thiosulphate in Potassium Cyanide Poisoning A Lassaga —p 443

Myalgia and Arthralgia Caused by Bismuth.—In Destefano and Aguirre's patient myalgia and multiple arthralgia developed six hours after the second injection of a bismuth preparation The next two injections had the same effect The phenomena subsided on stopping the medication

Precipitation and Wassermann Tests in the Diagnosis of Syphilis.—Among 200 patients chosen at random by Alcaraz the Wassermann reaction proved positive in 27 5 per cent Sachs-Georgi's in 20 per cent, Meinicke's in 21 per cent and Kahn's in 22 5 per cent

34: 449 512 (Feb 24) 1927

Entozoon Infection in Children J M Macera and C Carreno —p 449
Measles Septicemia with Recovery F J Liceaga —p 465
Antimalaria Campaign at Medinas N C Davis et al —p 467
Mixed Tumors of the Kidney in Children J Bacigalupo —p 486
*Malignant Tumors of the Lung and Mediastinum R C Cremona and N Lopez Isnardi —p 487
Determining the Quality of Roentgen Rays J A Saralegui and F Vierheller —p 498

Prevalence of Malignant Tumors of the Lung.—Among 2,014 general hospital patients in two years, Cremona and López have found twenty-six cases, i e, 1 2 per cent, of malignant tumors of the lung and mediastinum The growths included epitheliomas, sarcomas and endotheliomas originating in the pleura Metastases were also common The most frequent tumors were those derived from the bronchial and alveolar epithelium, next came those originating in the mesodermic connective tissue, sarcomas and, finally, pleural endotheliomas In both the primary and secondary growths, the course may be either acute (galloping) or chronic Five cases are described in full The only constant feature was a leukocytosis oscillating between 9,600 and 14,000

Archiv für Kinderheilkunde, Stuttgart

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*Functional Efficiency of the Female Mammary Gland A Kollmann —p 81
Studies in Scarlet Fever H. Buschmann —p 88
Care of Infants in Asylums W Jacobi —p 95
Psychology of Childhood J S Galant —p 100
*Polychromatophilia in the New Born G Ockel and W W Haagen —p 107
Nutrition of Infants and Young Children F Hering —p 112
Specific Dynamic Influence of Protein in Children A Seifert —p 116.
Influence of Treatment on Mental Development of Children with Congenital Syphilis B Chalidis —p 126
Symptoms of Werlhof's Disease in B Paratyphosus B Infection A Gwosdz —p 140
Accumulation of Milky Fluid in the Pleural Cavity of an Infant A. Karaeff —p 142.

Functional Efficiency of the Female Mammary Gland.—Kollman reports the case of a wetnurse, 23 years of age, a multipara, who in fifty-one weeks on normal diet with addition of 1 liter of milk and 1 liter of beer daily produced 1,611,980 liters of milk Nine hundred and twenty-six thousand liters was suckled by infants, the rest expressed The general condition of the wetnurse during the whole period was extremely good and her weight remained constant The milk secretion rapidly decreased after suckling was discontinued, the regressive metamorphosis of the mammary glands occurred without disturbances and the breasts did not show any changes of note

Polychromatophilia in the Red Blood Picture of the New-Born—Ockel and Haagen's studies of the blood picture of twenty new-born infants indicate that there is present a marked polychromatophilia during the first days of life, which disappears in from ten to fourteen days The polychromophilic cells evidently represent immature erythrocytes

Archiv fur Verdauungs-Krankheiten, Berlin

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Treatment of Peptic Ulcers M Einhorn —p 1.
Lamblia Intestinalis K Wezler —p 18
Pancreatic Secretion in Diseases of Digestive Tract N W Kusnetzow and S J Michailowa —p 41
*External Secretion of the Pancreas B Goldstein —p 56
Insulin and Hyperthyroidism. L Nelken —p 75
Sex and Diseases of the Digestive Tract H Gunther —p 83
The Ileocecal Orifice W Bauermeister —p 115
*Treatment of Tuberculous Peritonitis L Lyon —p 120

External Secretion of the Pancreas—Goldstein examined the ferments of the duodenal fluid in healthy individuals He found that the concentration changes with the food—the trypsin increasing on a diet rich in proteins, the lipase on a fatty diet

Treatment of Tuberculous Peritonitis.—Lyon discusses critically the results of treatment of exudative tuberculous peritonitis He concludes that therapeutic pneumoperitoneum is superfluous

Biochemische Zeitschrift, Berlin

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*The Female Genital Hormone S Loewe et al —p 1
*Effect of Sodium Bicarbonate on Avitaminosis D Banerjee —p 27
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*Glycolytic Property of Tumor Extracts N Alders et al —p 46
Reduction of Cupric Oxide by Dextrose and Uric Acid E Lanyi —p 85
Oxidative Decomposition of Dextrose B Bleyer and W Braun —p 105
Electrometric Titration of the Gastric Juice K A Scukareff —p 117
Electrometric Determination of Hydrochloric Acid K A Scukareff —p 127
Influence of Epinephrine and Pilocarpin on the Excretion of Nitrogen L Pincussen and A Walter —p 132
Influence of Potassium and Calcium on Excretion of Nitrogen L Pincussen and E Coelho —p 136
Glycocoll as Protein Substitute J Williger —p 156
Sensitizing and Stabilizing Effect of the Skin on Colloid Solutions A Janek and B Jirgensons —p 193
*Influence of Sodium Phosphate on Gas Exchange J Abelin and B Kobori —p 211
*Influence of Alkaline Phosphate on Carbohydrate Metabolism B Kobori —p 218
Protein Bodies and the Bence Jones Reaction R Willheim —p 231

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Influence of Food on the Enzymes in Cow s Milk T Chrzaszcz and C Goralowna —p 247
Diastase in Cow s Milk Under Pathologic Conditions T Chrzaszcz and C Goralowna —p 263
Complement Fixation and Colloidal Serum Lability H Sachs —p 288
Determination of Cholesterol L Suranyi —p 293
Influence of Iodine on Excretion of Milk A Strobel and K Scharrer —p 300
Chemistry of Iodine Metabolism in Animals K Scharrer and J Schwaibold —pp 307 and 334
*Administration of Iodine to Milch Cows A Strobel et al —p 313
Relation of Dextrose to Potassium and Sodium Hydroxide J Groot —p 341
Decoloration of Light Green by Serum H B van Dyke and A Schurmeyer —p 353
Calcium Content of Blood Serum in Absence of Vitamin B A Ungar —p 357
Bound Cholesterol in the Nervous System L Gassner —p 359
*The Iso Electrical Point of the Casein of Breast Milk F Trendtel —p 371
Role of Heavy Metal in Autooxidation of Sugar Solutions. H. A Krebs —p 377.

Gold Sol and Proteins M Spiegel Adolf —p 395.
Nutritive Value of Acrospires. M Rubner and A. Schittenhelm.—p. 426.
Biologic Utilization of Purified Dry Yeast Schittenhelm et al —p 454.

The Female Genital Hormone. — Loewe, Lange and Spohr studied cytologically the estrual process in the vagina of castrated mice. Several plants, especially female flowers of the willow, contain a substance which provoked and stimulated the estrual cycle in the animals

Effect of Sodium Bicarbonate and of Ferric Oxide on Avitaminosis in Pigeons.—In experiments on pigeons fed on polished rice, Banerjee found that neither sodium bicarbonate, sodium chloride nor ferric oxide counteracted the otherwise fatal effects of avitaminosis

Glycolytic Capacity of Tumor and Tissue Extracts.—Alders, Chiari and Laszlo studied tissue and tumor filtrates that did not contain cells or bacteria Sterile filtrates of cancer and sarcoma tissue of mice evinced glycolytic properties in most cases The same was true of filtrates of kidney tissue, but liver filtrates did not decompose carbohydrates

Sodium Phosphate and Gas Exchange.—Abelin and Kobori studied the effect of monosodium phosphate and disodium phosphate on the gas exchange of rats after administration of meat The increase in gas metabolism after ingestion of meat was considerably lowered if the meat was given together with alkaline phosphate The phosphate influenced the metabolism of carbohydrates in an analogous way

Influence of Electrolytes on the Metabolism of Carbohydrates.—In experiments on rats Kobori found that the decomposition of carbohydrates in the animal organism was influenced by simultaneously administered electrolytes When carbohydrates were given together with alkaline phosphates, calcium chloride or sodium bicarbonate, the increase in the production of carbon dioxide was considerably less than in the case of normal combustion Among carbohydrates the levulose alone was not influenced by phosphate

Administration of Iodine to Milch Cows.—Strobel, Scharrer and Schropp noted that daily doses of 1.53 or 3.82 mg of iodine increased the milkgiving capacity of cows The animals tolerated the doses well and no unfavorable effects were observed The percentage of fat was somewhat decreased The specific gravity of the milk remained the same

Individual Differences in the Iso-Electric Point of Casein in Breast Milk.—Trendtel confirmed Ylppo's observation that the iso-electric point of casein in breast milk varied in different women, but was always constant in the same person Addition of a 5 per cent solution of sodium chloride displaced the iso-electric point of casein to the alkaline side

Deutsche medizinische Wochenschrift, Berlin

53: 349 390 (Feb 25) 1927

History of the Conception of Inflammation H E Sigerist —p 349.
*Inflammation and Hydrogen Ion Concentration C Rohde —p 352
Treatment of Influenza U Friedemann —p 354
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*Function Tests for the Pancreas H Simon —p 357
*Roentgen Ray Treatment of Scleroderma J I Heinismann and L I. Czerny —p 358
Treatment of Amebiasis in Children D Deutsch —p 360
Diabetes and Pregnancy A Bingel —p 362
Hemorrhages in Labor and Puerperal Infection K Volkmann —p. 363.
A Labor Injury and Its Sequelae E Bettmann —p 364
Roentgenoscopy of the Stomach After Intravenous Injections. W. Unverricht and E Freude —p 366
Visualization of the Gallbladder B O Pribram —p 367
Roentgen Ray Examination in the Sick Room P Eichler —p. 368.
Ambulatory Curettement Schaedel —p 368
Comment on Above Article F v Mikulicz Radecki —p 369.
Warning Against "Carcin" C Garre —p 369.
Roentgen Ray Visualization of Female Genital Tract. R. Zimmermann. —p 370
English Statistics. G Wolff —p 371.
Liek's Book on the Mission of the Physician. J. Schwalbe.—p 374.
*Quacks and Medical Science Goldscheider.—p. 376 C'cn

Inflammation and Hydrogen Ion Concentration.—Rohde found that acid products of decomposition of inflamed tissues are buffered as long as the tissue is in connection with the general circulation. Its p_H does not fall below 6.8. The p_H of pus is lower and necrotic parts are still more acid. The accumulation of acid entails further destruction of the tissue.

Function Tests for the Pancreas.—Simon finds that determination of atoxyl-resistant lipase (*Rona*) and of diastase (*Wohlgemuth*) in the serum are the most reliable tests of pancreatic function. Determination of ferments in the duodenal contents has only a minor significance.

Roentgen-Ray Treatment of Scleroderma.—Heinismann and Czerny report fair results in two cases of scleroderma and failure in a third, after irradiation of the thyroid with small ("stimulating") doses of roentgen rays.

Quacks and Medical Science.—Goldscheider analyzes the nature of quackery and of medical science. The preference of some patients for quacks is obviously due to a general dislike of scientific medicine, even when it has been unquestionably successful, as in smallpox vaccination. Other persons object to medical science on the ground that it is unfinished and ever changing, while the various cults represent perfect systems. This shows that men who try to give a scientific basis to homeopathy are its greatest enemies. Clever homeopaths avoid scientific discussions. Our therapeutic failures are the most important cause for the survival of quackery Humanity asks impossible things from medical science, just as it demands from general science the solution of every problem of life. A healthy man may preserve his critical powers The sick person is overwhelmed by emotional factors Superstition is too common. The patient does not see his disease with the objective eye of the physician. He knows only about his complex of unpleasant sensations, which are influenced by his ideas as to their connection. Goldscheider called this subjective aspect the autoplastic picture of the disease The mental part of it is a good field for psychotherapy The physician frequently minimizes and overlooks the autoplastic picture. The quack centers his attention exclusively on it and thus succeeds in relieving the patient from worries which a physician omitted to remove by a few kind words The volitional sphere and the "merely" subjective disturbances are neglected by the physician. The patient usually does not understand whether or not the remedies used are rational Even if he did, he might still believe that there is a higher—intuitional—knowledge, beside the rational. Since Sauerbruch has recently promulgated such an opinion, it is no wonder that otherwise sensible laymen may also have it It would be a mistake to restrict the treatment to the autoplastic picture A correct diagnosis and rational treatment based on it are most important. The modern development of diagnosis has taken much of the nimbus from the personal acts of the physician Formerly the physician said to a syphilitic "you are cured" It was lack of knowledge, but it was much more impressive than a laboratory report The same applies to ready made remedies. Goldscheider does not believe that scientific balneology will increase the business of bathing resorts. It may spoil it. The popularization of medicine produces plenty of half-knowledge which is used to the detriment of scientific medicine. The proletarianization of physicians adds to the preference for quacks What shall be done against it? First of all, therapeutic results should be improved Second, the art of careful personal examination should be cultivated, all methods for an exact diagnosis used and a rational treatment instituted, which reckons with the importance of the natural resistance of the organism against disease and avoids overtreating the patient. This will not destroy quackery, but it will increase the number of the friends of medicine. As to legislative measures, Goldscheider is chiefly interested in the checking of quacks in regard to infectious diseases.

Klinische Wochenschrift, Berlin

6: 337 384 (Feb 19) 1927

Water Metabolism in Infants E Rominger —p 337.
Function of Endothelium in Nephritis R Siebeck —p. 343.
*Nomenclature of Blood Groups F Verzar —p 347.
*Catalytic Power of Mineral Waters W Schoeller and G. Rothe —p 348
*Variations in Erythrocytes and in Hemoglobin G Walterhöfer —p 350.
Vascular Region of Hemianopia W. Riese —p 351.
The Blood Picture in the New Born Gierthmuhlen and Jess —p 353.
Oxidation Reaction of the Cerebrospinal Fluid. L. Benedek and E. von Thurzo —p 356

Treatment of Diabetic Children. A. Heimann-Trosien and H. Hirsch-Kaufmann.—p. 357.
Action of Iodine on Heart and Vessels. H. Guggenheimer and I. L. Fisher.—p. 359.
*Is the Allen-Doisy Test Specific? M. Dohrn.—p. 359.
Pharmacology of the Uterus. K. Schübel and W. Teschendorf.—p. 360.
Iritis After Recurrens Treatment of Paralysis. W. Feilchenfeld and Leibbrand.—p. 360.
Otogenic Abscess of the Brain. W. Klestadt.—p. 361.
Nature of Lead Poisoning. P. Schmidt.—p. 367.

Nomenclature of Blood Groups.—Verzár deplores the general confusion due to Moss' interchange of Jansky's groups I and IV and to those authors who are still using Moss' division instead of the original. He pleads for substitution of the figures by letters indicating the antigens contained in the blood corpuscles: O for group I Jansky, A for group II, B for group III and AB for group IV Jansky. He believes that technical mistakes are most liable to occur in the determination of group O. Reexaminations of such persons should be made.

Catalytic Power of Mineral Waters.—Schoeller and Rothe found that fresh Carlsbad water acts as a peroxidase. This property disappears on twenty minutes' standing. They conclude from their experiments that the activity is due to a system consisting of bivalent ions of iron and of carbon dioxide. Loss of carbon dioxide or presence of oxygen inactivates the water. Artificial Carlsbad water prepared according to Warburg's suggestion has the same activity as natural water.

Variations of Erythrocytes and Hemoglobin.—Walterhöfer found, with Neuburger, surprisingly great variations in the blood counts made at intervals of from two to five minutes after puncture of an ear lobe. For instance, while 6,020,000 erythrocytes were counted at first, 3,970,000 were found eight minutes later. The changes in the hemoglobin concentration and in the leukocyte counts were parallel to the changes in the erythrocyte count.

Is the Allen-Doisy Test Specific?—Dohrn obtained the same cornification of vaginal epithelium with testicular extracts as with ovarian extracts. He concludes that the Allen-Doisy test is not specific.

6: 385-432 (Feb. 26) 1927

The Menopause. H. Eymer.—p. 385.
*The Female Genital Hormone. E. Laqueur.—p. 390.
Congenital Heart Diseases. E. Blumenfeldt and E. Wollheim.—p. 396.
*Electrolytes and Blood Sugar. Hasenöhrl and F. Högler.—p. 399.
Regulation of Insulin Secretion. H. Staub.—p. 401.
Treatment of Cystitis with Lactic Acid Buffers. G. Düttmann.—p. 402.
Gain in Fat in Convalescence. W. Lasch.—p. 404.
Sulphur of Erythrocytes. J. Kühnau.—p. 406.
*The Spleen in Prevention of Infections. W. Kikuth.—p. 406.
Syphilitic Spondylarthritis. Jessner.—p. 408.
*Allergens from Fungi. W. Storm van Leeuwen and W. Kremer.—p. 408.
*Forgotten Observations on Capillaries. H. Stegemann.—p. 412.
Associated Movement of the Thumb. R. Wartenberg.—p. 430.

The Female Genital Hormone.—Laqueur surveys the properties and methods of standardization of the ovarian hormone. He requires a strength of at least 10 units per milligram of the water soluble substances. He derides investigators who try to determine the chemical properties of the hormone in solutions where it forms hardly 0.2 per cent of the solids.

Electrolytes and Blood Sugar.—Hasenöhrl and Högler injected chlorides of sodium, potassium and calcium intravenously. Except for a slight increase, no specific influence on the blood sugar was noted. The injections were also without influence in diabetes and in epinephrine hyperglycemia. A combination of calcium and atropine was without any effect on blood sugar.

The Spleen in Prevention of Infections.—Kikuth found that splenectomy increases the susceptibility of rats to trypanosomiasis and of monkeys to piroplasmosis. With Meyer he also succeeded in producing Oroya fever in a splenectomized monkey inoculated with a node from Verruga peruviana.

Allergens from Fungi.—Storm van Leeuwen and Kremer found that allergens may be extracted from various molds. The serum from hypersensitive subjects contains a substance which transmits local susceptibility. It also contains a substance which inhibits the reaction, if the allergen is mixed with the serum before injection.

Forgotten Observations on Capillaries.—Stegemann finds that most of the recent work is only a rediscovery of phenomena which was well described 100 years ago. This includes one of his own discoveries, the priority of which was claimed by Magnus.

Medizinische Klinik, Berlin

23: 233-270 (Feb. 18) 1927

*Arsphenamine Treatment and Prognosis of Syphilis. C. Bruhns.—p. 233.
*Blood Chemistry in Gastric Ulcer. F. Reiche.—p. 236.
Traumatic Psychic Epilepsy. E. Stransky.—p. 238.
High Altitudes in Therapy. S. Hediger.—p. 239.
*Roentgen-Ray Treatment of Inflammatory Diseases of Locomotor Apparatus. F. Kraus.—p. 242.
Open Treatment of Fractures. P. Greef.—p. 244.
Urogenic Enterococcus Sepsis. E. M. Fuss.—p. 245.
Coué's Method. A. Brauchle.—p. 246. C'td.
*Rubor in Pneumonia. I. Verö.—p. 249.
Dystrophy with Pigmentation and Neurofibromatosis. J. S. Galant.—p. 250.
Cell Stimulation. M. Popoff.—p. 251. C'td.
Inability to Work in Psychopathic Reactions. M. Wulsten.—p. 255.
Gynecology and Constitution. R. Katz.—p. 256.
The Physician and Legislation on Marriage. J. Heller.—p. 267.

Arsphenamine Treatment and Prognosis of Syphilis.—Bruhns admits that the percentage of cases of aortitis is increasing, but denies that this is due to arsphenamine treatment. The increase had begun before arsphenamine came into use and the time which has elapsed since is too short to be considered. Future years may show an influence. There is no reason to assume that the incidence of tabes and general paralysis is rising. Arsphenamine treatment diminishes the infectious manifestations of syphilis and thus prevents its spread. This is an additional reason for its use.

Blood Chemistry in Gastric Ulcer.—Reiche did not find any characteristic changes in the concentration of blood cholesterol, calcium, potassium or chlorine in patients with ulcers of the stomach.

Roentgen-Ray Treatment of Inflammatory Diseases of the Locomotor Apparatus.—Kraus had good results with roentgen-ray treatment of neuritis and arthritis. Some chronic processes were well affected. Acute gonorrheal and rheumatic arthritis may improve also. The pain increases, as a rule, for the first three or four days.

Rubor in Pneumonia.—Verö confirms the frequency, in pneumonia, of redness of the cheek of the affected side. It is especially evident in children.

23: 271-308 (Feb. 25) 1927

Backache. H. H. Schmidt.—p. 271.
*Syndrome of Hypotension. E. Kylin.—p. 273.
Dyshidrotic Eczema from Epidermophytosis. A. Alexander.—p. 275.
Injury of Kidneys by Diiododcinchophen. A. Herrmann.—p. 278.
*Formation of Pigment in Vitiligo. E. Uhlmann.—p. 279.
Hepatargy. G. Noah.—p. 280.
Treatment of Bronchial Asthma. E. Rischawy.—p. 282.
Coué's Method. A. Brauchle.—p. 283. C'cn.
Diagnosis of Tuberculous Meningitis. O. Göttche.—p. 286.
Inunction with Bismuth in Syphilis in Rabbits. B. Albrecht and E. Evers.—p. 287.
Cell Stimulation. M. Popoff.—p. 288. C'cn.
Tumor of Spinal Cord Not Due to Service. Von Schnizer.—p. 292.

Syndrome of Hypotension.—Kylin believes that abnormally low and abnormally high blood pressure represent only different phases of the same nosologic group. The subjective and objective disturbances are practically identical in both conditions. This applies especially to the vagotonic curve of the blood pressure after injection of epinephrine.

Formation of Pigment in Vitiligo.—Uhlmann covers the normal skin with a quinine-zinc liniment, then applies an alcoholic solution of oil of bergamot to the vitiligo spots. Immediately after this he irradiates the skin with artificial sunlight. He obtained good cosmetic results.

Monatsschrift für Geb. und Gynäkologie, Berlin

75: 463-576 (Feb.) 1927

The Amino-Acids in Pregnancy and Eclampsia. H. Runge and A. Juhl.—p. 463.
The Toxicoses and Dyscrasias of Pregnancy. L. Seitz.—p. 469.
*Pregnancy and Mitral Stenosis. G. Zinsstag.—p. 498.

A Bilateral Fibroadenomatous Ovarian Tumor. W. Lahm.—p. 508.
Intermittent Hydrosalpinx. R. Joachimovits.—p. 520.
Recent Increase in Obstetric Complications. H. Küstner.—p. 524.
A Study Tour in the United States. L. Fraenkel.—p. 530.

Pregnancy and Mitral Stenosis.—Zinsstag reports three cases in which women with mitral stenosis reached the end of pregnancy with little difficulty, but died suddenly shortly after delivery. In one case delivery was by abdominal, in another by vaginal cesarean section; in the third it was spontaneous and otherwise normal. In one case there were not any signs of decompensation during the pregnancy. Zinsstag believes interruption of the pregnancy justified, at any rate in multiparas. Sterilization is absolutely indicated. He lays stress on the suddenness with which the heart function collapses, in the midst of apparent wellbeing.

Monatsschrift für Kinderheilkunde, Leipzig

35: 97-192 (Feb) 1927

Exogenic Invasion of Stomach by Colon Bacilli. Catel.—p 97.
*Hamburger's Milk-Free Infants' Food. W. Roedel.—p. 103
Vaccination Against Chickenpox. G. Meyer-Stromfeldt.—p. 111.
Feer's Disease. A. Bohe.—p. 114.
Diabetes in Infants. H. J Freyschmidt.—p. 121.
Filling of Appendix in Adhesive Tuberculosis. P. Frick —p 133.
Psychology of Children. J. S. Galant.—p. 137. C'tn.
*Nonspecific Hemoptysis in Fibrinous Bronchitis. M. Berger.—p. 145.

Milk-Free Infants' Food.—Roedel had excellent results in infants with exudative diathesis with Hamburger's milk-free diet A 5 to 8 per cent rice water, alternating with decoctions of groats, rusks or wheat flour, forms the basis. Finely ground liver, in amounts ranging from 60 to 100 Gm. daily, supplies the necessary proteins. Fat is provided by olive oil, in which wheat flour is browned. Sugar and a salt mixture are added. Fruit juices furnish the vitamins.

Nonspecific Hemoptysis in Fibrinous Bronchitis.—Berger reports two cases of hemoptysis in nontuberculous children. One of them had whooping cough, the other measles followed by fibrinous bronchitis. Conglomerates of pulmonary tissue were found in the sputum, but the children recovered.

Münchener medizinische Wochenschrift, Munich

74: 265-304 (Feb. 18) 1927

*Anomalies of Posture and Gymnastics. F. Lange.—p. 265.
Blood Groups in Twins. E. Wiechmann and H. Paal.—p 271.
*Iodine in the Human and Animal Organism. E Maurer et al —p. 271.
*Thoracic Hypertrophic Pachymeningitis. C. Joisten —p. 273.
*Sella Turcica Changes in Tumors of the Brain. H. Harms.—p. 274.
*Arsphenamine Plus Immune Serum. W. Krantz.—p. 275.
Legislation on Paternity. Louros and H. Muller.—p. 277.
Reinfusion of Blood in Ruptured Tubal Pregnancy. T. Brunner.—p. 279.
Antigen for Serodiagnosis of Tuberculosis. W. Oberste-Berghaus —p. 280.
Asthenic Influenzal Pneumonia. J. Lewy.—p. 281.
Conservative Treatment of Furuncles. A. Kissmeyer.—p. 282.
"Fourth Disease." C. Fervers.—p. 283.
*Expert Testimony on Paternity. A. Döderlein.—p. 283.
Disturbances of Sleep in Children. F. Hamburger.—p. 284.
Mercurial Ointment in Surgical Diseases. C. Schöne.—p. 284.
Diagnosis of Internal Hemorrhoids. A. Ploeger.—p. 285.
Law on Medical Practice Act. R. Fuchs.—p. 286.

Anomalies of Posture and Gymnastics.—Lange finds that the classical Greek statues representing men show a pronounced lordosis and round back, while the typical female posture has a flatter outline to the back. The lordosis of the male ideal of the Greeks would now entail a sagging abdomen, since the abdominal muscles are not so well developed in our time. On examination of children with faulty postures he found that in about 80 per cent the spine from the middle of the thorax to the fourth lumbar vertebra was practically alike in all. The differences were found almost exclusively in the upper and lower segments of the spine. The connection between the fifth lumbar vertebra and the sacral bone proved to be the most important. This pointed to the significance of the position of the pelvis for posture. An abnormally great inclination of the pelvis entails a tendency to fall forward and is compensated for by a lordosis of the lumbar spine, which restores the vertical position of the body. A low inclination of the pelvis causes, for similar reasons, a kyphosis. When a child raises one thigh, the inclination of the pelvis becomes smaller and the lordosis as well as the ptosis of the abdomen disappears. Strengthening the gluteus maximus muscle counteracts this anomaly of the pelvic angle and the subsequent faulty posture. The best training of this muscle is obtained by putting the child on his abdomen (with a pillow beneath it) and having him overextend the thigh against a weight suspended on the foot. The round back is a much less frequent (10 per cent) faulty posture. The pelvic angle is too small here and the flexors of the thigh should be strengthened. The third type of faulty posture—forward displacement of the shoulders—occurs alone or combined with either one of the two other types. In these children the pectoralis muscles should be stretched by application of weights to the extended arms (in the dorsal decubitus) while the hands touch beneath the head. Later on the trapezius and rhomboid muscles should be trained. Blind children, according to Schaidler, develop almost regularly a faulty posture and appropriate treatment should be instituted.

Iodine in the Organism.—Maurer, Ducrue and Palasoff found iodine in most of the organs in a concentration which is about six times higher than that in the blood. The suprarenal and especially the ovary have the largest iodine content. In newly born girls the latter gland ranks almost as high as the thyroid.

Thoracic Hypertrophic Pachymeningitis.—Joisten's patient was a young man presenting the symptoms of a hypertrophic pachymeningitis localized in the thoracic part of the spine. The Wassermann reaction was negative and the parents did not admit syphilis until the histologic examination made after laminectomy pointed to a gumma. The patient recovered almost completely after antisyphilitic treatment.

Sella Turcica Changes in Tumors of the Brain.—Harms demonstrates that destruction of the sella turcica is of value in the localization of a tumor only in the presence of other symptoms, especially bitemporal hemianopia, since it may occur with any cerebral tumor.

Arsphenamine Plus Immune Serum.—Krantz injected a subtherapeutic dose of neoarsphenamine with addition of immune serum in mice infected with recurrens spirochetes. He obtained cures which were impossible when the drug alone was administered.

Expert Testimony on Paternity.—Döderlein's expert opinion is based on the assumption that a normal menstruation cannot occur after conception.

74: 305-352 (Feb. 25) 1927

Infection and Central Regulation of Metabolism. E. Grafe.—p. 305.
*Early or Late Treatment of Syphilis? A. Poehlmann.—p. 307.
The General Practitioner and the Tuberculosis Dispensary. J. E. Kayser-Petersen.—p. 311.
*False Death Certificates. F. Pietrusky.—p. 315.
Allard's Treatment in Recurrence After Operation for Cholelithiasis. A. Herrmann.—p. 317.
Wassermann Test on the Blood Clot (Dold). H. Gross.—p. 318.
Congenital Encapsulation of Intestine. R. Füth.—p. 319.
Ponndorf's Treatment of Tuberculosis. M. L. Kruse.—p. 322.
Indemnity in Asthma. Bensch.—p. 324.
*Magnesium Hydroxide as Antidote to Mercuric Chloride. M. A. Rakusin.—p. 325.
Pontile Hemorrhages in Pernicious Anemia. K. Brucke.—p. 326.
Early Diagnosis of Perforation of Gastric Ulcer. Grothusen.—p. 328.
Ozone and Its Use. H. Malten.—p. 330.
Estimation of Hemoglobin. Rostoski and Crecelius.—p. 330.
Estimation of Dextrose in Body Fluids. L. Lorber.—p. 331.
Treatment of Chilblains. W. Steimann.—p. 332.
Psychiatric and Neurologic Clinic in Munich. O. Bumke.—p. 332.

Early or Late Treatment of Syphilis?—Poehlmann had excellent results from early treatment of 174 cases of seronegative primary syphilis. He is strictly opposed to any delay in treatment.

False Death Certificates.—Pietrusky deals with erroneous death certificates. They are much more frequent than intentionally false reports. It cannot be emphasized too strongly that absence of heart beat and of respiration does not warrant assumption of death. In a certain case, these signs, with others (absence of corneal reflexes, negative sealing wax test), were present and only the wish to identify the underwear of the woman led to opening the coffin and saving her life. Electric shock leads primarily only to apparent death.

Visible injuries (fracture of skull, strangulation marks, criminal abortion) are many times overlooked.

Magnesium Hydroxide as Antidote Against Mercuric Chloride.—Rakusin finds that magnesium hydroxide is inferior to charcoal as an antidote in mercuric chloride poisoning.

Wiener klinische Wochenschrift, Vienna

40: 245-276 (Feb 24) 1927

Injuries to the Knee-Joint. A. Wittek.—p. 245.
Carbohydrate Metabolism in Hepatic Diseases. L. Elek and A. Oppenheimer.—p. 246.
*Iodine Excretion in Psychoses. H. Hoff and E. Stransky.—p. 248.
*Underdosage in Artificial Pneumothorax. H. Maendl.—p. 250.
Meningitis of the New-Born. D. Karplus.—p. 250.
A Female Tenor. E. Froschels.—p. 253.
Atypical Aortic Aneurysm. Z. Fischer and Modelhart.—p. 255.
Test Serums for Blood Groups. P. Moritsch.—p. 256.
Interrenal Gland and Hermaphrodism. E. Schwarz.—p. 257. C'cn.
Dietotherapy of Cholelithiasis. K. Glaessner.—p. 262.
Treatment of Fractures. B. Pfab.—p. 264. C'td.
Incipient Pulmonary Tuberculosis. A. Winkler. Supplement.—pp. 1-20.

Iodine Excretion in Psychoses.—Hoff and Stransky studied the elimination of iodine by the urine following administration of 0.5 Gm. of sodium iodide by mouth. They found that the excretion is slower during the melancholic phase and more rapid during the manic phase of circular psychosis. The results were irregular in schizophrenia.

Underdosage in Artificial Pneumothorax.—Maendl attributes two accidents observed by him to an insufficient refilling of artificial pneumothorax. The lung ruptured in one of the patients and a grave hemoptysis occurred in the other. Maendl believes that a negative pressure in the pneumothorax cavity caused distension of the lung. The accident was due to too much trust being placed in the roentgenologic report, which spoke for a complete pneumothorax, in spite of the long interval which had elapsed since the last insufflation of air.

Zeitschrift für Krebsforschung, Berlin

24: 395-487 (Feb. 25) 1927

Cholelithiasis and Cancer of the Gallbladder. F. Luelsdorf.—p. 395.
Heterologous Cancers. F. Bödecker.—p. 406.
*Relation of Echinococcus to Cancer. E. Ziegler.—p. 425.
Electrotropic Substances and Cancer. L. Karczag and G. Györgyi.—p. 444.
Sarcoma of the Skin and Granuloma Fungoides d'Emblée. J. H. Nienhuis.—p. 450.
Cancer Campaign in Germany. F. Blumenthal.—p. 459.
*Cancer and the Suprarenals. H. Flörcken.—p. 465.
Kahn's Albumin A Reaction. F. P. Tinozzi.—p. 477.

Echinococcus and Cancer.—Ziegler reports three cases of development of cancer in a liver invaded by echinococcus.

Cancer and the Suprarenals.—Flörcken believes that he obtained good results in desperate cases of cancer by extirpating one suprarenal and afterward applying comparatively small doses of roentgen rays. In animals the results were negative.

Zeitschrift für Kreislaufforschung, Dresden

19: 89-128, 1927

*Clinical Picture and Treatment of Angina Pectoris. M. M. Gubergritz.—p. 89. C'td.
Blood Pressure. W. Mussler and G. Rückle.—p. 101.

19: 129-168, 1927

*Clinical Picture and Treatment of Angina Pectoris. M. M. Gubergritz.—p. 129. C'cn.

Angina Pectoris.—Gubergritz reviews the diagnosis, prognosis and treatment of angina pectoris. Absence of dyspnea is one of the characteristic features of the attack. In fact, development of heart dilatation and of cyanosis frequently mitigates the attack. Transient fever following an attack is an important sign. Lowering of blood pressure during the attack and pulsus alternans are of bad prognostic significance. Therapeutic fever (by injection of tuberculin) has given some good results. Diathermy, avoidance of cold—including a cold room and bed—and rest may prolong the life of the patient. Morphine is sometimes unavoidable during an attack. It should be combined with atropine or papaverine. Venesection may prove useful in patients with hypertension, and antisyphilitic treatment should be used when indicated. He is sharply opposed to surgical interventions.

Zentralblatt für Chirurgie, Leipzig

54: 65-128 (Jan. 8) 1927

Vessel Transplantation. R. Weglowski.—p. 67.
Infectiousness of the Bursa Mucosa in Hallux Valgus. H. Pick.—p. 70.
Djanelidze's Reposition of Shoulder and Hip Joint Dislocations. J. Danilack.—p. 72.
Fracture of the Tuberosity of the Fifth Metatarsal from Muscular Action. K. Koch.—p. 74.
Chronic Migrating Phlebitis. V. Chlumský.—p. 75.
New Method of Correcting Spondylitic Gibbus. E. Bettmann.—p. 77.
*Exclusion of the Kidney. L. Casper.—p. 79.
*Intestinal Prolapse as Late Sequela of Appendectomy. M. Siebner.—p. 85.

Exclusion of the Kidney Where Nephrectomy is Impossible.—Casper describes two cases in which nephrectomy had to be abandoned because it was impossible to free the kidney from the adhesions in which it was embedded. In one case the operation was for pyohydronephrosis, recurring thirteen years after nephrotomy; in the other case there was pyonephrosis of long standing, but there had been no previous operation on the kidney. In both cases, Casper ligated and divided the ureter. The upper segment he sutured into the skin, so that an outlet for the urine could be quickly made in case of necessity. Recovery, however, was perfectly smooth, the patients' urine cleared and both have been entirely free from symptoms; in the first case the cure is of seven years' standing.

Prolapse of Intestine Eight Weeks After Appendectomy.—A child, aged 4, in a weak condition, was operated on for perforated appendicitis. He made a smooth recovery, but the wound healed slowly. Eight weeks after the operation, the cecum, which was mobile, with a funnel shaped sacculation, prolapsed and protruded through a small unhealed portion of the wound. Reposition, after a week in the horizontal position, failed and a second laparotomy was done; the prolapse was reduced and the wound closed. Peritonitis set in and the child died. In the future, Siebner says, he would invaginate the prolapsed segment of the cecum, if this did not cause stenosis, and cover it with normal serosa; he would even consider resection, and he would drain the abdominal cavity.

Nederlandsch Maandschrift v. Geneeskunde, Leyden

14: 1-43, 1927

Tumors in Leukemia. J. van der Hoeve.—p. 1.
Tumors and Leukemia. G. O. E. Lignac.—p. 10.
Calcified Primary Lesions in Surgical Tuberculosis. D. van Dorp and B. Andreae.—p. 22.
Active Immunization in Scarlet Fever. D. van Dorp and B. Andreae.—p. 28.
Serum Treatment and Active Immunization Against Scarlet Fever. J. Munk and M. de Korte.—p. 33.

14: 45-98, 1927

Organotropy. R. Doerr.—p. 45.
Chronic Myeloid Leukemia. A. F. A. S. van Westrienen.—p. 66.
Diagnosis and Therapy in Empyema in Children. C. W. Bisdom and D. Mulder.—p. 77.
Diphtheritic Vulvovaginitis. C. W. Bisdom.—p. 84.
Subcutaneous Adiponecrosis in the New-Born. J. A. van Dongen.—p. 88.

Nederlandsch Tijdschrift v. Geneeskunde, Amsterdam

70: 917-1020 (Feb. 19) 1927

Meningeal Reactions in Syphilis. B. Dujardin.—p. 918.
Removal of Hairs in Hypertrichosis of the Face by Means of Diathermy. P. J. van Putte.—p. 924.
Surgical Paralysis of the Ulnar Nerve. T. S. Klots.—p. 929.

70: 1021-1136 (Feb. 26) 1927

*Treatment of Bronchial Asthma. J. Hekman.—p. 1022.
*Intracranial Pressure and Brain Tumor. C. T. van Valkenburg.—p. 1043.
Liver Abscess Mistaken for Empyema. C. van Luijt.—p. 1058.
Cornu Cutaneum of the Penis. M. Kisman.—p. 1060.

Treatment of Bronchial Asthma.—Hekman differentiates between direct and indirect irritation therapy. Autovaccine is used in the first, and milk, collargol, sulphur, tuberculin, turpentine, etc., in the second. Precautions should be taken in applying irritation therapy to patients with circulatory disturbances, nephritis, diabetes, congenital syphilis and to very feeble children or old persons. In bronchial asthma the best results were obtained by *injection of streptococcus* autovaccine freshly prepared from sputum. Old vaccine had a less favorable effect. The author considers that bronchial asthma is caused *originally* by infection of the smallest bronchi by streptococci.

Alteration of the Cranial Pressure by a Tumor of the Brain.—Valkenburg's patient, aged 18, had for four months been suffering from stiffness of the left arm *and leg, and* severe headache. The condition was diagnosed as tumor of the right half of the brain, originating in the neighborhood of the central convolutions. Operation was performed under local anesthesia and a tumor weighing 210 Gm. was removed. The patient died a few hours after the operation, apparently from the sudden change in the intracranial pressure. The brain did not present edema or exudates.

Acta Ophthalmologica, Copenhagen

4: 97-192, 1927

*Reimplantation of the Eye in Vertebrates. F. Ask and E. Andersson.—p. 97.
Aplanatism. H. Gertz.—p. 164.
Atonic Ptosis with Bilateral Luxation of the *Lacrimal Gland.* L. Cronstedt.—p. 177.

Reimplantation of the Eye in Vertebrates.—Ask and Andersson performed homoplastic transplantation and reimplantation of the eye, according to Koppányi, in gold-fishes aged 1½ years. From thirteen to thirteen and a half months after the operation, nerve connections developed between the atrophic stump of the optic nerve and the eyeball. Regeneration of the parasympathetic stripes of unmedullated nerve fibers, which connect the uvea with the central apparatus, took place first. The layer of nerve fiber and ganglion cells in well preserved retinas developed medullated nerve fibers. Regenerated trigeminus fibers grew into the implanted eye both after homeoplastic transplantation and after reimplantation, if the nerve grafting operation was anatomically successful.

Acta Radiologica, Stockholm

8: 1-105 (Feb. 28) 1927

*Radium Treatment of Hemangioma, Lymphangioma and Nevus Pigmentosus. G. Andren.—p. 1. In English
*Treatment of Cancer of the Skin. J. Wetterer and F. Gaa.—p. 46.
Emission of Electrons from Solid Surfaces. H. Holthusen and O. Ascher.—p. 51.
Vessel Ectasia of Mucosa of Larynx After Roentgen-Ray Irradiation. L. Halberstaedter and K. Vogel.—p. 81.
Destructive Nontuberculous Osteitis. R. Hanson.—p. 86.

Radium Treatment of Hemangioma, Lymphangioma and Nevus Pigmentosus.—Andrén reviews the radiologic treatment *of nevus and gives an account of its pathology and* clinical manifestations. He describes the technic employed in treatment of 288 cases of hemangioma, eleven cases of lymphangioma and sixty-nine cases of epidermal nevus. Seventy-six cases of capillary, 138 of superficial cavernous and fifty-nine of deep cavernous hemangiomas were treated with radium and in a few cases with roentgen rays. As a rule, each dose was 80 per cent of the erythema dose and the intervals were of considerable length. The hemangiomas were carefully watched between the treatments and the dose was not repeated until improvement had taken place. In treatment with *roentgen rays*, the dose generally was one fourth of the erythema dose and a 4 mm. aluminum filter was used. In capillary hemangioma cosmetic restoration was obtained only in children under 1 year of age and then only in cases where the size of the hemangioma did not exceed 10 by 35 mm. In more extensive hemangiomas the treatment did not lead to cosmetically satisfactory results. Of superficial cavernous hemangiomas, about 70 per cent were cosmetically restored and about 30 per cent improved. The cavernous hemangioma frequently grows rapidly during the first year of life and should therefore be treated during this time. Of fifty-nine cases of deep cavernous hemangioma, cosmetic restoration was obtained in twenty-eight and improvement in seventeen. Treatment with an extra lead *filter, 2 or 3 mm. thick, brought* about cosmetic restoration in two of eleven cases of cavernous lymphangioma. In eleven cases of nevus pigmentosus and thirty-five of pilose nevus pigmentosus cosmetic, restoration was obtained when electrocoagulation was substituted for radium treatment.

Treatment of Cancer of the Skin.—Wetterer and Gaa describe a case of cancer of the skin with over 300 various sized nodules of adenogenetic type with little tendency to growth and little sensitiveness to *irradiation. They were* distributed over the scalp, face, ears, throat and neck. The treatment consisted of a combination of fractional irradiation *by roentgen rays*, injection of blood serum and dextrose and prolonged deep electrolysis. The authors succeeded in removing every nodule with cosmetically excellent results and in completely restoring the patient, who had already become somewhat cachectic.

Finska Läkaresällskapets Handlingar, Helsingfors

69: 95-184 (Feb.) 1927

*"Esophylaxis." A Cedercreutz.—p. 108.
Vertigo F. Lein.—p. 119.
Pathogenesis in Spontaneous Pneumothorax. F. Saltzman.—p. 146.

Erich Hoffman's "Esophylaxis," the Internal Protective Function of the Skin.—Cedercreutz reports the case of a man, aged 65, who for five months had been suffering from an almost universal eczema. The whole skin surface was irradiated with roentgen rays in small doses. Eight days after the second irradiation the eczema disappeared, but the patient developed a *psychosis combined with confabulation*, which lasted for three weeks. This type of psychosis often occurs in intoxications and has previously been observed in connection with skin affections due to roentgen-ray irradiation. It is possible that toxic substances that had previously been bound to the skin, became liberated and produced the psychotic symptoms.

Norsk Magazin for Lægevidenskapen, Christiania

88: 169-232 (March) 1927

*Influence of Pregnancy on the Teeth. G. Toverud.—p. 169.
Scarlet Fever Antitoxin. K. Motzfeldt.—p. 186.
*Infectious Mononucleosis. H. A. Salvesen and R. Magnussøn.—p. 189.
Etiology and Course of Diabetes Mellitus. H. F. Høst.—p. 196.

Influence of Pregnancy on the Teeth.—Toverud refers the increased disposition to caries during pregnancy to histologic and chemical changes in the bones. Decrease in the blood calcium during the last period of pregnancy indicates disturbance of the calcium balance. Experiments on pregnant rats fed with food low in calcium and vitamins show that calcium is removed from the bones to compensate for its deficiency in the food. The tendency to caries during pregnancy should be counteracted by administration of large amounts of calcium and vitamins.

Infectious Mononucleosis.—Salvesen and Magnussøn report two cases of infectious mononucleosis in young men. Both cases were characterized by fever, moderately swollen glands, especially in the neck, sore throat and increase in leukocytes with an increase in lymphocytes as high as 75 per cent. In one of the cases the blood was studied after injection of sterile milk in convalescence. There was a normal reaction: leukocytosis due to increase of the neutrophils.

Upsala Läkareförenings Förhandlingar, Upsala

32: 171-297 (March 15) 1927

Surgical Complications in Ascariasis. H. Laurell.—p. 171.
*The Action of Living Tissues on Trivalent and Pentavalent Arsenic Compounds. C. Naeslund.—p. 259. In English.
Anomaly of the Hand. M. Wrete.—p. 285.
Stereoscopic Ophthalmography. J. W. Nordenson.—p. 295.

The Action of Living Tissues on Trivalent and Pentavalent Arsenic Compounds.—Naeslund's investigations on rabbits show that animals that have grown tolerant to large doses of arsenic from prolonged administration by mouth are not tolerant to the poison when it is received through other routes than the digestive canal. The liver of these "arsenic eaters" does not possess a demonstrable power of binding or detoxicating the arsenic that passes through it with blood from the portal vein. The experimental results corroborate the assumption that the increased arsenic tolerance of "arsenic eaters" depends on decreased absorption of the poison from the intestinal canal.

The Journal of the
American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 88, NO. 24 CHICAGO, ILLINOIS JUNE 11, 1927

ENDEMIC MENINGOCOCCUS MENINGITIS

THE QUANTITATIVE SUGAR AND CHLORIDE CONTENT OF THE CEREBROSPINAL FLUID DURING SPECIFIC SERUM THERAPY *

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AND
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Numerous investigators [1] agree that the sugar content of the cerebrospinal fluid is commonly decreased in acute purulent meningococcus meningitis. Others have reported a decrease in the chlorides [2] of the cerebrospinal fluid in the same disease. There is little record in the literature [3] of the quantitative changes in these constituents of the cerebrospinal fluid during specific serum therapy. The subject of this report is the quantitative changes in the sugar and chloride content of the cerebrospinal fluid in thirty-three cases of sporadic meningococcus meningitis in infants and children during the subarachnoid administration of antimeningococcus serum.

The normal cerebrospinal fluid sugar content, as determined by us with the Myers-Bailey [4] modification of the Lewis Benedict method, varies between 45 and 65 mg. per hundred cubic centimers. The normal cerebrospinal fluid chloride content, as determined by us with the method of Myers and Short [5] varies between 675 and 750 mg. per hundred cubic centimeters.

Coincident cerebrospinal fluid sugar and blood sugar determinations were made only in special cases in which the cerebrospinal fluid blood sugar ratio (normal, from 40 to 60 per cent) seemed necessary to eliminate or prove coincident changes in the cerebrospinal fluid sugar content. In uncomplicated cases of meningococcus meningitis, the blood sugar concentration does not vary sufficiently to alter significantly the cerebrospinal fluid sugar values. We have not followed the chloride ratio in the blood and cerebrospinal fluid. Wilcox and Lyttle [2] noted that this percental relationship was not constant.

Table 1 shows complete data in the thirty-three cases of bacteriologically proved meningococcus meningitis in infants and children from 4 weeks to 7 years of age. All these patients received serum therapy with the exception of two (patients 31 and 33). These were fulminating cases in which death occurred before there was opportunity for serum injection. We have not used the chemical data recorded before treatment in case 2 in the making of the charts or in the compilation of succeeding tables because epinephrine had been injected subcutaneously, just previous to the patient's admission to the hospital. This explains the unusually high cerebrospinal fluid sugar (102 mg. per hundred cubic centimeters). Simultaneous blood sugar showed 206 mg. per hundred cubic centimeters, and does not represent the true chemical condition of the cerebrospinal fluid in the disease before treatment with serum.[6] The amounts of serum injected varied considerably in individual cases. Our data records the chemical changes of the cerebrospinal fluid in relation to the day of treatment rather than the amount of serum given.

It will be seen that approximately 50 per cent of these observations are in infants of not more than 12 months of age. The table records twenty-five recoveries and eight deaths, or a mortality of 24 per cent, including the two untreated cases (table 1, cases 31 and 33).

The contrast in cerebrospinal fluid sugar content during treatment in fatal cases and in patients who recovered is represented in chart 1. This chart records the averages of all sugar determinations in table 1. The average sugar content before treatment is greatly diminished in both groups and practically identical; 21 mg. per hundred cubic centimeters in patients who recovered and 19 mg. in the fatal cases. In the favorable cases there is a progressive increase in sugar during treatment, 33 mg. per hundred cubic centimeters after twenty-four hours, 39 mg. after forty-eight hours, 39 mg. after seventy-two hours, 44 mg. after ninety-six hours; then follows a slight decrease and a continuation of sugar values in the normal zone after the ninth day. In contrast, in the group of fatal cases there is a persistence of low sugar values which remained below 20 mg. per hundred cubic centimeters throughout the course of the treatment. A striking feature of the cerebrospinal fluid sugar values in cases which terminated fatally is that in not a single case was there any material increase in the cerebrospinal fluid sugar. The data in case 21, table 1, would seem to be inconsistent

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* From the Department of Diseases of Children, College of Physicians and Surgeons, Columbia University and the Chemical Laboratory, Babies' Hospital.

[1] Mestrezat, W.: *Le liquide céphalo-rachidien*, Paris, 1912. Goodwin, G. M., and Shelley, H. J.: Sugar Content of Cerebrospinal Fluid and Its Relation to Blood Sugar, Arch. Int. Med. **35**: 242 (Feb.) 1925. Moates, G. H., and Keegan, J. J.: J. Lab. & Clin. Med. **8**: 563 (Sept.) 1923. Crawford, B. L., and Cantarow, Abraham: Am. J. M. Sc. **171**: 859 (June) 1926.

[2] Mestrezat (footnote 1). Fremont-Smith, F., and Dailey, M. E.: Human Cerebrospinal Fluid, New York, 1924. Wilcox, H. B.; Lyttle, J. D., and Hearn, J. E.: Chemical Composition of Spinal Fluid, Am. J. Dis. Child. **30**: 513 (Oct.) 1925. Nobécourt and Voisin: Arch. gén. de méd. **2**: 3019, 1903. Steiner, B., and Beck, R.: Jahrb. f. Kinderh. **103**: 223 (Nov.) 1923.

[3] Schloss, O. M., and Schroeder, L. C.: Nature and Quantitative Determination of the Reducing Substance in Normal and Pathologic Cerebrospinal Fluid, Am. J. Dis. Child. **11**: 1 (Jan.) 1916. Von Bókay, Z.: Jahrb. f. Kinderh. **109**: 31 (June) 1925.

[4] Myers, V. C., and Bailey, C. V.: J. Biol. Chem. **24**: 147 (Feb.) 1916.

[5] Myers, V. C., and Short, J. J.: J. Biol. Chem. **44**: 47 (Oct.) 1920.

[6] Polonovski, M.; Duhot, E., and Morel: Compt. rend. Soc. de biol. **87**: 679, 1922.

with this statement, as the sugar value on the day before death was 44 mg. per hundred cubic centimeters. However, a hyperglycemia with acidosis developed thirty-six hours before death. The blood sugar was 370 mg., with a cerebrospinal fluid sugar of 44 mg. We attribute the terminal increase in the cerebrospinal fluid sugar to 44 mg. to the hyperglycemia. It should be noted that the cerebrospinal fluid sugar blood sugar ratio is 11 per cent instead of 50 per cent.

A comparison of the average cerebrospinal fluid sugar curves during recovery with serum in patients younger and older than 6 months of age is shown in chart 2. The important feature of this chart is the slower increase in cerebrospinal fluid sugar content in the younger group. In this group the initial values before treatment are lower than those of the older group, 13 mg. per hundred cubic centimeters, as com-

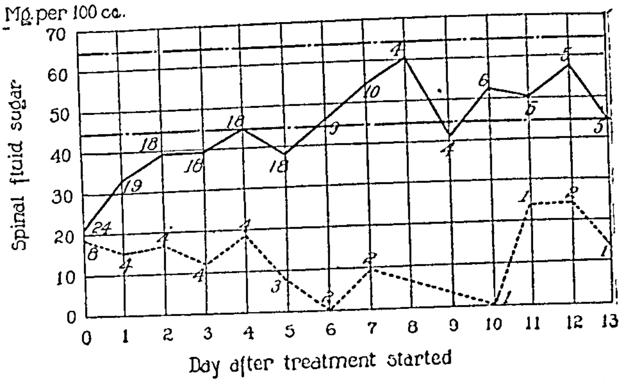

Chart 1.—Contrast in average cerebrospinal fluid sugar concentration during treatment in nonfatal and fatal cases. Numerals at curve represent number of patients examined each day of treatment. Solid line, patients who recovered; broken line, patients who died.

TABLE 1.—*Data in All Cases*

							Patients Who Recovered	Day After Treatment Started													
No.	Sex*	Name	Age	Day of Disease	Mg. per 100 Cc.	Before Treatment Began	1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	3d week
1	♂	M. O.	4 wk.	3	Serum, cc	0	20	20	15	20	20	20	20	...	...	...	...	...	...	0
					Sugar	11	17	15	16	11	14	12	0	...	...	...	...	...	...	12
					Chloride	625	625	650	663	663	650	625	600	...	...	...	...	...	...	700
					Cells, c.mm	3,800	8,000	8,000	10,000	5,500	5,000	1,000	2,300	...	...	...	...	...	...	40
2†	♂	N. W.	5 wk.	4	Serum, cc	0	20	30	10	10	0	...	15	...	...	0	...	...	0	...
					Sugar	102	16	18	22	33	52	...	43	...	...	59	...	...	46	...
					Chloride	950	713	525	638	638	638	...	675	...	...	675	...	...	688	...
					Cells, c.mm	Purulent	5,000	5,000	1,000	1.000	260	...	280	...	...	260	...	...	90	...
3	♀	D. H.	7 wk.	2	Serum, cc	0	20	20	10	30	20	20	0	0	...	...	...	...	0	...
					Sugar	32	32	28	35	33	38	28	35	...	...	...	...	...	43	...
					Chloride	663	688	675	675	688	688	...	700	...	...	...	...	...	688	...
					Cells, c.mm	4,400	5,000	1,700	1,800	600	1,500	600	200	150	...	...	...	...	40	...
4	♀	F. M.	8 wk.	15	Serum, cc	0	15	55	12	33	20	...	...	...	0	...	...	0	...	0
					Sugar	11	19	19	...	27	17	...	...	...	30	...	...	29	...	29
					Chloride	600	625	620	..	575	...	...	...	...	625	...	...	...	...	...
					Cells, c.mm	5,100	4,900	3,400	2,200	2,300	1,600	...	...	...	150	...	...	1,200	...	120
5	♂	J. R.	4 mo.	15	Serum, cc	0	20	18	0	5	0	0	0	0	...	0	0	...	...	0
					Sugar	0	...	...	...	...	0	...	30	14	...	33	36	...	...	36
					Chloride	613	...	..	...	...	638	...	738	738	...	700	713	...	...	700
					Cells, c.mm	2,000	...	..	..	...	310	...	100	70	...	50	36	...	...	99
6	♀	V. B.	5 mo.	31	Serum, cc	0	20	20	20	20	20	...	...	...	0	0	...	...	...	...
					Sugar	12	7	25	25	27	31	...	...	...	33	33	...	...	...	...
					Chloride	625	625	650	663	625	638	...	...	...	688	...	...	...	...	...
					Cells, c.mm	3,000	6,000	1,100	...	4,800	2,000	...	...	...	70	110	...	...	...	...
7	♀	M. M.	5 mo.	5	Serum, cc	0	20	20	20	20	20	...	...	...	...	...	...	...	0	...
					Sugar	26	24	33	...	32	42	...	...	...	...	...	...	...	33	...
					Chloride	613	638	650	...	675	675	...	...	...	...	...	...	...	...	...
					Cells, c.mm	720	6,000	330	710	260	100	...	...	...	...	...	...	...	110	...
8	♀	A. J.	6 mo.	22	Serum, cc	0	20	10	20	15	0	...	...	0	...	...	...	...	...	...
					Sugar	0	...	0	...	22	31	...	...	...	...	...	...	...	...	...
					Chloride	675	...	675	...	675	650	...	...	...	...	...	...	...	...	...
					Cells, c.mm	1,400	600	360	360	300	380	...	...	60	...	...	...	...	...	...
9	♀	S. M.	6 mo.	7	Serum, cc	0	15	20	...	...	...	...	20	...	...	...	...	...	...	...
					Sugar	0	33	36	...	...	...	...	36	...	...	...	...	...	...	...
					Chloride	630	700	700	...	...	...	...	700	...	...	...	...	...	...	...
					Cells, c.mm	1,500	1,800	320	...	...	...	...	40	...	...	...	...	...	...	...
10	♀	L. D.	6 mo.	6	Serum, cc	0	20	30	15	15	18	20	...	...	...	0	...	...	...	0
					Sugar	22	43	45	52	51	16	51	...	...	...	55	...	...	...	16
					Chloride	675	650	650	663	...	675	675	...	...	...	688	...	...	...	688
					Cells, c.mm	2,200	2,600	2,000	250	...	750	320	...	...	...	90	...	...	...	29
11‡	♀	M. D.	6½ mo.	7	Serum, cc	0	40	20	20	0	0	20	...	0	...	...	0	...	...	...
					Sugar	13	21	...	42	52	52	...	...	...	...	...	72	...	...	...
					Chloride	650	675	...	750	675	...	...	...	...	...	...	725	...	...	...
					Cells, c.mm	4,100	4,480	1,400	600	...	850	1,500	...	120	...	...	11	...	...	...
12	♂	L. D.	8 mo.	4	Serum, cc	0	20	20	20	...	20	20	20	0	0	0	...	...	...	...
					Sugar	19	27	37	40	...	47	51	...	50	79	65	...	...	...	...
					Chloride	625	625	600	613	...	625	638	...	663	725	700	...	...	...	...
					Cells, c.mm	13,300	. .	760	340	...	310	280	170	...	104	...	...	...	...	...
13	♂	L. T.	8 mo.	4	Serum, cc	0	20	40	40	40	0	...	0	...	...	...	0	...	...	0
					Sugar	61	68	72	74	63	60	...	90	...	...	...	47	...	...	58
					Chloride	688	675	688	688	688	675	...	700	...	...	...	763	...	...	700
					Cells, c.mm	3,700	13,000	8,000	1,700	600	38	...	6	...	...	...	2	...	...	10
14	♀	J. M.	9 mo.	3	Serum, cc	0	35	60	20	0	0	...	...	...	...	...	...	0	...	...
					Sugar	18	33	34	48	49	49	...	...	...	...	...	...	51	...	...
					Chloride	575	625	663	663	650	638	...	...	...	...	...	...	700	...	...
					Cells, c.mm	4,800	6,800	2,100	330	390	460	...	...	...	...	...	...	13	...	...
15§	♂	S. K.	11 mo.	36	Serum, cc	0	20	20	20	20	20	0	0	...	0	...	0	...	0	0
					Sugar	13	30	27	26	29	36	40	40	...	36	...	36	...	36	44
					Chloride	650	688	675	675	675	713	700	...	...	700	...	700	...	650	688
					Cells, c.mm	2,500	1,800	1,300	780	620	680	450	220	...	70	...	30	...	70	20
16	♀	E. B.	1 yr.	8	Serum, cc	0	17	15	15	20	17	...	...	...	...	...	...	...	...	...
					Sugar	16	...	...	20	...	18	...	...	...	...	...	...	...	...	...
					Chloride	675	...	...	650	...	675	...	...	...	...	...	...	...	...	...
					Cells, c.mm	520	...	...	420	540	80	...	...	...	...	...	...	...	...	...
17	♂	R. G.	13 mo.	4	Serum, cc	0	60	20	20	...	...	...	0	0	...	...	...	...	...	...
					Sugar	56	61	83	73	...	...	...	77	70	...	...	...	...	...	...
					Chloride	650	693	725	700	...	...	...	713	700	...	...	...	...	...	...
					Cells, c.mm	3,500	2,600	500	100	...	...	...	120	...	...	...	...	...	...	...

Table 1.—*(Continued)*

Patients Who Recovered

No.	Sex*	Name	Age	Day of Disease	Mg. per 100 Cc.	Before Treatment Began	Day After Treatment Started													
							1st	2d	3d	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	3d week
18	♀	E. A.	18 mo.	8	Serum, cc.	0	20	20	20	20	12	15	...	...	...	0	...	0	...	0
					Sugar	28	...	...	64	63	57	...	...	...	...	66	...	71	...	49
					Chloride	725	...	...	738	713	713	...	...	...	...	700	...	700	...	713
					Cells, c.mm.	4,400	...	...	1,500	560	220	92	...	...	...	72	...	8	...	9
19	♀	A. A.	21 mo.	3	Serum, cc.	0	15	40	20	0	20	0	0	...	...	...	...	...	0	...
					Sugar	43	32	...	...	41	...	51	60	...	...	...	...	...	62	...
					Chloride	688	650	...	...	713	...	713	738	...	...	...	...	...	725	...
					Cells, c.mm.	8,900	4,100	2,400	1,060	2,200	320	124	140	...	...	...	...	...	40	...
20	♂	J. P.	20 mo.	22	Serum, cc.	0	32	20	18	20	0	20	0	0	...	...	...	...	...	0
					Sugar	0	...	...	...	...	...	...	...	...	...	...	...	...	...	46
					Chloride	675	...	...	...	...	...	...	...	...	...	...	...	...	...	688
					Cells, c.mm.	1,100	260	370	160	...	168	...	...	760	...	...	...	...	...	40
21	♂	F. R.	30 mo.	6	Serum, cc.	0	20	40	20	20	20	20	20	...	...	0	...	...	...	0
					Sugar	22	82	53	94	87	75	74	88	...	...	70	...	...	...	66
					Chloride	575	625	638	613	625	625	700	638	...	...	625	...	...	...	625
					Cells, c.mm.	16,000	10,000	4,000	1,900	1,500	150	200	200	...	...	...	...	...	...	40
22	♀	D. K.	30 mo.	31	Serum, cc.	0	40	20	20	20	20	...	...	...	...	...	...	...	...	...
					Sugar	24	...	...	44	...	48	...	...	...	...	...	...	...	...	...
					Chloride	700	...	...	...	...	750	...	...	...	...	...	...	...	...	...
					Cells, c.mm.	3,200	...	...	840	...	100	...	...	...	...	...	...	...	...	...
23	♂	A. S.	3 yr.	6	Serum, cc.	0	40	20	40	20	...	20	...	0	0	...	...	...	...	0
					Sugar	32	26	95	78	63	...	68	...	58	67	...	...	...	...	50
					Chloride	635	700	790	675	700	...	688	...	650	725	...	...	...	...	675
					Cells, c.mm.	8,000	4,000	760	740	520	...	100	...	360	280	...	...	...	...	30
24#	♂	J. M.	4 yr.	15	Serum, cc.	0	20	20	20	20	...	0	0	...	...	...	0	...	...	...
					Sugar	20	24	34	43	72	...	39	32	...	...	...	58	...	...	...
					Chloride	625	600	625	625	675	...	675	663	...	...	...	700	...	...	...
					Cells, c.mm.	3,000	2,200	440	120	90	...	182	366	...	...	...	36	...	...	...
25	♂	A. M.	6 yr.	4	Serum, cc.	0	80	20	20	20	...	...	...	...	...	0	...	...	...	...
					Sugar	17	46	55	62	66	...	...	...	...	...	...	...	...	...	...
					Chloride	675	725	725	688	675	...	...	...	...	...	...	...	...	...	...
					Cells, c.mm.	10,000	8,500	2,000	400	210	...	...	...	...	...	40	...	...	...	...
							Fatal Cases													
26	♂	T. B.	4 wk.	14	Serum, cc.	0	20	20	25	20	20	40	20	...	...	0	0	0	Death	...
					Sugar	52	18	18	12	12	0	0	...	...	...	0	24	27	...	...
					Chloride	625	625	613	625	613	575	575	...	...	...	600	650	...	...	...
					Cells, c.mm.	2,500	Purulent	1,200	1,900	4,800	6,400	1,900	...	...	...	1,100	330	260	...	...
27	♂	E. Q.	6 wk.	8	Serum, cc.	0	5	20	0	10	12	20	20	...	...	...	...	...	...	...
					Sugar	0	...	...	...	...	23	...	Death	...	...	...	...	...	...	...
					Chloride	500	...	...	...	...	588	...	...	...	...	...	...	...	...	...
					Cells, c.mm.	1,300	1,200	...	140	350	100	...	...	...	...	...	...	...	...	...
28	♂	J. B.	7 wk.	8	Serum, cc.	0	20	20	...	...	...	...	...	...	...	...	...	...	...	...
					Sugar	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
					Chloride	625	...	Death	...	...	...	...	...	...	...	...	...	...	...	...
					Cells, c.mm.	16,000	7,000	...	...	...	...	...	...	...	...	...	...	...	...	...
29¶	♀	L. R.	10 wk.	6	Serum, cc.	0	50	20	15	40	Death	...	...	...	...	...	...	...	...	...
					Sugar	14	19	28	19	44	...	...	...	...	...	...	...	...	...	...
					Chloride	713	694	688	700	675	...	...	...	...	...	...	...	...	...	...
					Cells, c.mm.	8,000	4,000	1,100	730	900	...	...	...	...	...	...	...	...	...	...
30	♀	R. R.	4 mo.	3	Serum, cc.	0	15	11	12	18	6	...	0	10	10	Death	...	...	...	...
					Sugar	0	0	0	0	0	0	...	0	...	...	...	...	...	...	...
					Chloride	675	...	675	...	...	700	...	700	...	...	...	...	...	...	...
					Cells, c.mm.	9,000	21,000	Purulent	430	4,800	...	...	1,100	...	...	...	...	...	...	...
31	♀	L. R.	13 mo.	1	Serum, cc.	0	Spinal fluid and blood positive for meningococcus. Death without treatment. Extensive purpura													
					Sugar	47														
					Chloride	...														
					Cells, c.mm.	140														
32	♀	S. S.	26 mo.	26	Serum, cc.	0	20	20	40	20	40	...	0	...	...	...	0	0	...	Death 18th day
					Sugar	20	26	21	18	19	...	...	19	...	...	...	22	14	...	
					Chloride	...	...	...	...	663	...	...	663	...	...	...	625	613	...	
					Cells, c.mm.	1,500	1,800	1,300	1,400	2,400	...	...	1,500	...	...	...	1,700	3,500	...	
33	♀	A. D.	7 yr.	1	Serum, cc.	0	Spinal fluid and blood positive for meningococcus. Death without treatment. Extensive purpura													
					Sugar	15														
					Chloride	638														
					Cells, c.mm.	Purulent														

* In this column ♂ indicates male; ♀, female.
† Epinephrine injection before admission to hospital; blood sugar 206 mg. per hundred cubic centimeters before treatment started.
‡ Patient died, twenty-fourth day of disease; acute colitis; cerebrospinal fluid normal.
§ Patient died, sixty-fifth day of disease; bacillary dysentery; cerebrospinal fluid normal.
# Severe serum sickness, sixth and seventh days of treatment.
¶ Terminal hyperglycemia, 370 mg. per hundred cubic centimeters, with acidosis.

pared with 25 mg. In the younger group the sugar content increased after serum, but slowly, and reached only 30 mg. after six days of treatment. Normal averages are not reached during the period of treatment. Some individual examples of persistent low sugar with recovery are shown in chart 4. In the group of patients more than 6 months of age who were cured, the increase in cerebrospinal fluid sugar is rapid and the averages indicate that the normal sugar zone is reached approximately thirty hours after the institution of treatment. This increase to normal is considerably earlier than the increase to normal in the majority of cases, as tables 2 and 3 indicate. After reaching normal, the averages fluctuated moderately in the normal range, 45 to 65 mg. per hundred cubic centimeters.

The lower cerebrospinal fluid sugar values in infants younger than 6 months of age cannot be explained on the basis of a lower blood sugar for this age group. In our own experience, the normal blood sugar is constant throughout the first year after the first month, and averages between 80 and 110 mg. per hundred cubic centimeters. In this we agree with the work of Guy[7] that there is no relationship between the age of the infants and the blood sugar after the first month of life. The observations of Lucas and his co-workers[8] and of Sedgwick and Ziegler[9] on infants less than 1 month of age, that the blood sugar is at a distinctly lower concentration than at later periods, can be excluded as an influential factor in our results, as the youngest patient was 4 weeks of age. That a hypoglycemia is not responsible for the relatively lower cerebrospinal fluid sugar in the younger group is actually demonstrated in two of these cases in which coincident blood sugar and cerebrospinal fluid sugar determinations are available (chart 4, *C* and *D*).

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[7] Guy, R. A.: Quart. J. Med. **15:** 9 (Oct.) 1921.

Table 2—*Incidence of Decreased Normal and Increased Cerebrospinal Fluid Sugar in Patients More Than Six Months of Age Who Recovered*

Day After Treatment Started	Total Number Cases	Normal Sugar: Number of Cases	Normal Sugar: Percentage of Cases	Decreased Sugar: Number of Cases	Decreased Sugar: Percentage of Cases	Increased Sugar: Number of Cases	Increased Sugar: Percentage of Cases
Before treatment	15	2	14	13	86	0	0
1st	13	2	15.5	9	69	2	15.5
2d	13	2	15.5	8	62	3	23.5
3d	11	1	28.5	6	42	4	28.5
4th	13	8	61.5	3	23	2	15.5
5th	12	9	75	2	16	1	9
6th	11	8	72.7	1	9	2	18.3
7th	12	7	58.3	2	16.7	3	25
8th	12	10	83.4	1	8.3	1	8.3
9th	11	9	81.8	1	9.1	1	9.1
10th	11	8	72.6	1	9.1	2	18.3
11th	12	11	91.7	1	8.3	0	0
12th	12	9	75	1	8.3	2	16.7
13th	14	13	92.8	1	7.2	0	0
3d week	13	11	84.8	1	7.6	1	7.6

Chart 3 demonstrates the effect of serum treatment on the polymorphonuclear pleocytosis in the two groups (less and more than 6 months of age) whose sugar values are contrasted in chart 2. The average cell counts during the third, fourth, fifth and sixth days of treatment are considerably higher in the younger group, 2,600, 2,100, 1,400 and 1,600 per cubic millimeter, as compared with 650, 720, 300 and 380 per cubic millimeter in the patients more than 6 months of age. This chart suggests that the delayed increase in the low cerebrospinal fluid sugar after treatment is also associated with a delay in the subsidence of the inflammatory cellular reaction in the cerebrospinal fluid in the group of younger patients. Clinically, recovery also is retarded in the younger patients. We believe that the delayed improvement in sugar content is one manifestation of general slower response to therapy in the younger group rather than a specific difference in sugar metabolism in children younger and older than 6 months.

Table 3.—*Incidence of Decreased, Normal and Increased Cerebrospinal Fluid Sugar in Patients Less Than Six Months of Age Who Recovered*

Day After Treatment Started	Total Number Cases	Normal Sugar: Number of Cases	Normal Sugar: Percentage of Cases	Decreased Sugar: Number of Cases	Decreased Sugar: Percentage of Cases	Increased Sugar: Number of Cases	Increased Sugar: Percentage of Cases
Before treatment	9	0	0	9	100	0	0
1st	10	0	0	10	100	0	0
2d	10	1	10	9	90	0	0
3d	10	1	10	9	90	0	0
4th	10	1	10	9	90	0	0
5th	10	2	20	8	80	0	0
6th	9	2	23	7	77	0	0
7th	9	1	12	8	88	0	0
8th	8	2	25	6	75	0	0
9th	8	2	25	6	75	0	0
10th	8	2	25	6	75	0	0
11th	8	2	25	6	75	0	0
12th	8	2	25	6	75	0	0
13th	8	2	25	6	75	0	0
3d week	7	2	29	5	71	0	0

Tables 2 and 3 were made to determine the incidence (actual number of cases) of decreased, normal and increased sugar values each day of the treatment rather than the average figures for all cases on each day. In the charts it will be realized that early rapid increases in a few cases (cases 21, 23 and 13, table 1) probably unduly influence the averages and are misleading as to the actual incidence of sugar. Tables 2 and 3 eliminate this possible error. These two tables are made from the data in table 1, with the addition that we have assumed on days when determinations were not made that the values were decreased when they were preceded and followed by decreased values, that they were normal when preceded and followed by normal values, and that after reaching the normal zone all cases remained normal. There is only one exception to the latter statement: in case 24, table 1, in which there was a moderate decrease from normal sugar on the sixth and seventh days of treatment during severe serum sickness.

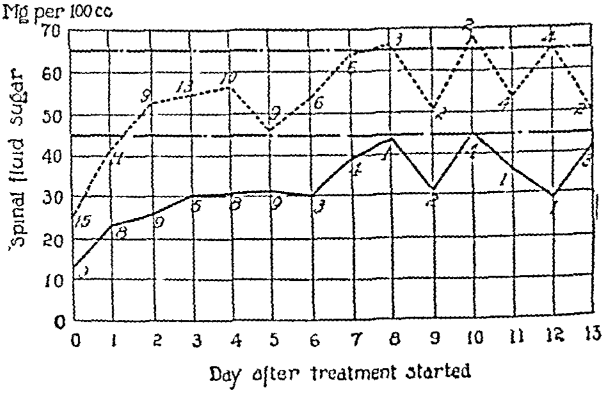

Chart 2.—Contrast in cerebrospinal fluid sugar concentration during treatment in patients more and less than 6 months of age who recovered. Numerals at curve represent number of patients examined each day of treatment. Solid line, 6 months of age or less; broken line, more than 6 months of age.

The data in the recovered patients of more than 6 months of age is represented in table 2. Before treatment the sugar content of the cerebrospinal fluid was diminished in thirteen cases (86 per cent) and was normal in two cases (14 per cent). The number of cases showing low sugar decreases each succeeding day of the treatments; 86, 69, 62, 42 and then, on the fourth day of treatment only 23 per cent of the cases show cerebrospinal fluid sugar concentration below the normal limits. After the sixth day of treatment there is only a single case showing low spinal fluid sugar. These figures indicate that the return of the sugar to normal in children more than 6 months of age occurs in the majority of cases between seventy-two and ninety-six hours after treatment is begun rather than thirty hours after the first treatment, as depicted in chart 2.

Table 3 shows that all infants younger than 6 months have diminished cerebrospinal fluid sugar content before treatment, and that in 75 per cent of the cases it remained below normal for two weeks following the beginning of treatment. Thus, a high percentage of cases with a diminished sugar content late in the course of treatment accompanied the persistent low average sugars and the persistence of polymorphonuclear pleocytosis late in the treatment seen in the younger infants in charts 2 and 3, respectively.

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[8] Lucas, W. P., Dearing, B. F., Hoobler, H. R., Cox, A., Jones, M. R., and Smyth, F. S.: Blood Studies in New Born, Am. J. Dis. Child. 22: 525 (Dec.) 1921.

[9] Sedgwick, J. P., and Ziegler, M. R.: Nitrogenous and Sugar Content of Blood of New Born, Am. J. Dis. Child. 19: 429 (June) 1920.

A comparison of tables 2 and 3 shows a persistence of low sugar incidence in the younger group, as compared with children more than 6 months of age. This difference is obvious in the two tables; for example, on the eighth day of treatment in the younger group only 25 per cent showed normal sugar values, while in the older group on the eighth day, 90 per cent were normal or above normal. Also, in the observation period of three weeks, not more than 25 per cent in the group of ten younger patients had normal sugar values on any one day of treatment; while in the older group of fifteen children, 87 per cent were normal after the fourth day of treatment.

It is apparent in table 1 that the sugar content of the cerebrospinal fluid varied considerably in individual cases during treatment. In chart 4, five types of these variations are represented.

REPORT OF CASES

Case A (12, table 1) depicts the sugar values during treatment in a patient who responded favorably to treatment. Subarachnoid injection of serum was begun twenty-four hours after the onset of the symptoms in an infant, aged 9 months. Organisms were present in the cerebrospinal fluid before treatment and in the specimens withdrawn twenty-four and forty-eight hours afterward. Later cerebrospinal fluid specimens did not contain organisms. The sugar content showed prompt increase from the initial low determination of 19 mg. per hundred cubic centimeters. The normal zone was reached after approximately seventy-two hours of treatment. This, we believe, is the usual sugar response in infants more than 6 months of age treated adequately early in the disease. These data are similar to those for cases 10, 11, 18, 22, 24 and 25 in table 1.

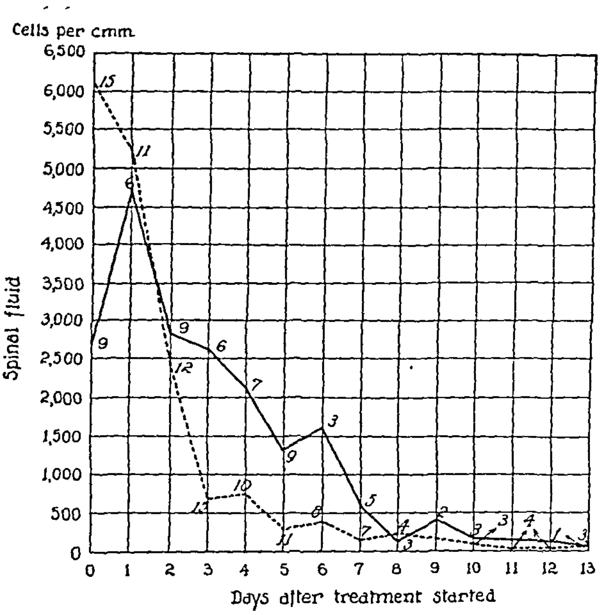

Chart 3.—Contrast in polymorphonuclear pleocystosis during treatment in patients more and less than 6 months of age who recovered. Numerals at curve represent number of cases examined each day of treatment. Solid line, 6 months of age or less; broken line, more than 6 months of age.

Case B (32, table 1) shows the persistent low sugar throughout the course of treatment in a fatal case. This patient was 26 months old. Meningeal symptoms had been present thirty days prior to the initial lumbar puncture. The highest sugar determination throughout the period of observation was 26 mg. per hundred cubic centimeters. The cerebrospinal fluid contained meningococci on the first, second and third days of treatment. There was a continued polymorphonuclear pleocytosis throughout the treatment, with a cell count at no time less than 1,500 per cubic millimeter. Organisms persisted in the cerebrospinal fluid; the cultures thirteen and fourteen days after the beginning of serum treatment were positive for meningococci.

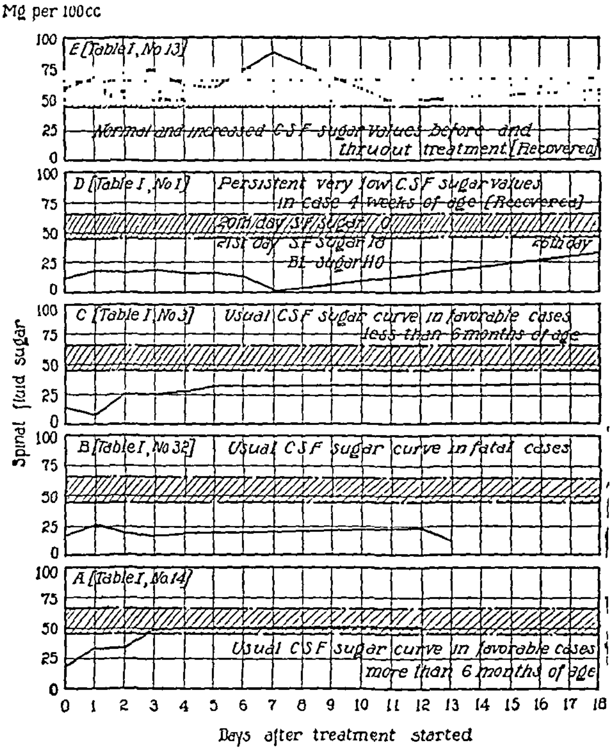

Chart 4.—Individual case variations in cerebrospinal fluid sugar curves during treatment.

Case C (6, table 1) shows the persistence of low sugar values during treatment in patients less than 6 months of age. In this patient, aged 5 months on admission, the family had observed a bulging fontanel and convulsions for one month. There was an increase in cerebrospinal fluid sugar from 11 mg. to 35 mg. during the first five days of treatment, and a continuation of sugar content of 35 mg. per hundred cubic centimeters for the next ten days. The cerebrospinal fluid contained meningococci in the specimen withdrawn before treatment, and on the first, second and third days of treatment. Organisms were not found in later specimens. This patient had a weakness of the left side of the body, and was unable to hold up her head at 12 months.

Case D (1, table 1) is an example of extremely low cerebrospinal fluid sugar with complete recovery. This patient was 4 weeks old when treatment was begun, the youngest in the entire group. Treatment was begun three days after the onset of symptoms. The cerebrospinal fluid contained meningococci on the first, second and third days of treatment. Subsequent specimens were sterile. The cerebrospinal fluid sugar values were never greater than 20 mg. per hundred cubic centimeters during the first week, and there was complete absence of sugar on the eighth day. This low sugar was not due to a hypoglycemia, since simultaneous cerebrospinal fluid and blood sugar determinations on the twenty-first day of treatment showed values of 18 and 110 mg. per hundred cubic centimeters, respectively (cerebrospinal fluid sugar blood sugar ratio of 16 per cent). The cell count of the cerebrospinal fluid was 40 per cubic centimeter on this day.

Case E (13, table 1) is an example of normal cerebrospinal fluid sugar before treatment which continued normal or above normal throughout treatment. Organisms were grown from specimens of cerebrospinal fluid withdrawn before treatment and on the first and second days of treatment. They were present in smears on the third and fourth days of treatment. This patient was 8 months of age, and specific therapy was begun three days after the onset of symptoms. Simultaneous cerebrospinal fluid and blood sugar determinations on the first, fourth, seventh and eleventh days of treatment show that these high cerebrospinal fluid sugar values in the specimen of an active purulent meningococcus meningitis were not due to hyperglycemia. Further, the cerebrospinal fluid sugar blood sugar ratio is normal (from 47 to 62 per cent) instead of exhibiting the marked decrease usually found in meningococcus meningitis (table 4).

Table 4.—*Cerebrospinal Fluid and Blood Sugar Determinations*

Day of Treatment	Cells per C mm.	Cerebrospinal Fluid Mg. per 100 Cc.	Blood Sugar Mg. per 100 Cc.	Cerebrospinal Fluid Sugar Blood Sugar Ratio
First	13,000	61	128	47%
Fourth	600	63	111	57%
Seventh	6	90	144	62%
Eleventh	2	47	96	48%

The cerebrospinal fluid chlorides were normal during the period of observation. Case 17, table 1, is a second example of this type of sugar curve during treatment. The chlorides were slightly diminished in the specimens withdrawn before treatment and normal thereafter.

Table 5.—*Incidence of Decreased, Normal and Increased Cerebrospinal Fluid Chlorides in Nonfatal Cases in Children More Than Six Months of Age*

Day After Treatment Started	Total Number Cases	Normal Chlorides		Decreased Chlorides		Increased Chlorides	
		Number of Cases	Percentage of Cases	Number of Cases	Percentage of Cases	Number of Cases	Percentage of Cases
Before treatment	15	7	46.7	8	53.3	0	0
1st	11	6	54.6	5	45.4	0	0
2d	9	6	66.7	3	33.3	0	0
3d	12	8	66.7	4	33.3	0	0
4th	10	8	80.0	2	20.0	0	0
5th	8	5	62.5	3	37.5	0	0
6th	6	5	83.3	1	16.7	0	0
7th	5	4	80.0	1	20.0	0	0
8th	3	2	66.7	1	33.3	0	0
9th	2	2	100.0	0	0	0	0
10th	2	1	50.0	1	50.0	0	0
11th	4	4	100.0	0	0	0	0
12th	4	4	100.0	0	0	0	0
13th	1	1	100.0	0	0	0	0
3d week	3	3	100.0	0	0	0	0

COMMENT

Both the fermentative action of the meningococcus[10] and the glycolytic action of the polymorphonuclear leukocytes[11] have been considered the etiologic factors in the decrease of cerebrospinal fluid sugar in meningococcus meningitis. In the two cases discussed in the preceding paragraph there are normal and high sugar values and a normal cerebrospinal fluid sugar blood sugar ratio in the presence of viable meningococci and polymorphonuclear pleocytosis. In case D, chart 4, there is a low sugar value and a cerebrospinal sugar blood sugar ratio of 16 per cent in the absence of both viable meningococci and polymorphonuclear pleocytosis.

The chlorides were estimated in thirty cases of meningococcus meningitis before treatment was begun. In eighteen of these fluids the chloride content was less than normal, ranging from 500 to 663 mg. per hundred cubic centimeters. In the other twelve cases the chlorides were within normal limits, varying between 675 and 725. The average of twenty-four patients who recovered was 644 mg. per hundred cubic centimeters, while the average in the six cases which terminated fatally was somewhat less, 629. During serum treatment in the cases in which there was recovery, the average chloride concentration in the cerebrospinal fluid gradually increased, reaching normal about the sixth day after treatment was started. There are an insufficient number of chloride determinations in the fatal cases to warrant analysis in this group.

There is such marked divergence in the individual chloride figures that the curve of daily averages is somewhat misleading as to the actual occurrence of a diminution in the chloride content and the subsequent increase to normal. Tables 5 and 6 show the incidence (actual number of cases) and percentage of decreased, normal and increased chloride values each day of treatment. Table 5 represents the figures for fifteen patients more than 6 months of age who recovered. Before treatment, in a total of fifteen cases, eight fluids (53.3 per cent) showed a decreased chloride content, while seven fluids (46.7 per cent) gave chloride figures within the normal range. During treatment there is a progressive tendency toward normal, and on the seventh day 80 per cent of the fluids examined (four out of a total of five cases) showed normal chloride values.

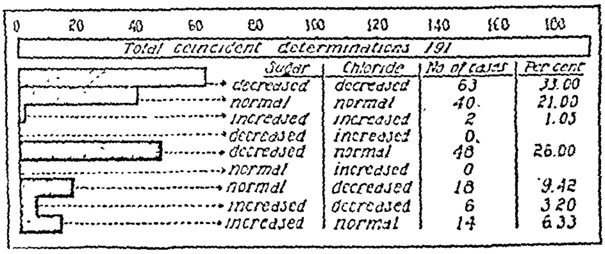

Chart 5.—Relationship of coincident cerebrospinal fluid sugar and chloride values before and during treatment.

Table 6.—*Incidence of Decreased, Normal and Increased Cerebrospinal Fluid Chlorides in Nonfatal Cases in Children Less Than Six Months of Age*

Day After Treatment Started	Total Number Cases	Normal Chlorides		Decreased Chlorides		Increased Chlorides	
		Number of Cases	Percentage of Cases	Number of Cases	Percentage of Cases	Number of Cases	Percentage of Cases
Before treatment	9	3	33.3	6	66.7	0	0
1st	8	3	37.5	5	62.5	0	0
2d	9	3	33.3	6	66.7	9	0
3d	5	4	80.0	1	20.0	0	0
4th	7	4	57.2	3	42.8	0	0
5th	8	3	37.5	5	62.5	0	0
6th	2	1	50.0	1	50.0	0	0
7th	5	4	80.0	1	20.0	0	0
8th	1	1	100	0	0	0	0
9th	2	1	50	1	50.0	0	0
10th	4	4	100	0	0	0	0
11th	1	1	100	0	0	0	0
12th	..	..	....	..	....	..	..
13th	2	2	100	0	0	0	0
3d week	1	1	100	0	0	0	0

Table 6 gives the figures for nine patients less than 6 months old who recovered. Here the percentage of cerebrospinal fluids having a decreased chloride content is greater than that seen in the older group of children in table 5. In a total of nine cases, decreased chloride content of cerebrospinal fluid was found in six (66.67 per cent), while in the remaining three (33.33 per cent) a normal chloride obtained. The percentage of normal cerebrospinal fluid chlorides increased gradually during serum therapy. However, in this group up to the seventh day we found a greater percentage of fluids showing decreased chloride content than in the older group on the corresponding day. This is a further indication of the slower response of the younger infants to serum treatment.

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[10] Moates and Keegan (footnote 1). Kegan, J. C.: Human Cerebrospinal Fluid, New York, 1924.
[11] Crawford and Cantarow (footnote 1).

The sugar and chloride values were compared to determine whether their deviations from normal were simultaneously parallel; i. e., if a decrease in cerebrospinal fluid sugar was always accompanied by a decreased cerebrospinal fluid chloride, or an increased cerebrospinal fluid sugar by an increased chloride. Chart 5 shows the data. Of 191 simultaneous determinations there was agreement in 105, or 55 per cent, in which a decreased sugar was found with a decreased chloride, a normal sugar with a normal chloride or an increased sugar with an increased chloride. In eighty-six determinations, or 45 per cent, there was lack of agreement, a normal sugar accompanying a decreased chloride, an increased sugar a normal chloride, a low sugar a normal chloride, or an increased sugar a decreased chloride.

A simultaneous parallel fluctuation in cerebrospinal fluid sugar and chloride content is not apparent.

SUMMARY

1. In acute purulent meningococcus meningitis before treatment, the sugar concentration of the cerebrospinal fluid was markedly decreased in 90 per cent of the cases. A small number of cases showed normal sugar concentration.
2. The administration of specific serum in children older than 6 months who recovered caused an increase in the cerebrospinal fluid sugar to normal within from seventy-two to ninety-six hours.
3. The administration of specific serum in patients younger than 6 months who recovered caused a slower increase in cerebrospinal fluid sugar. Normal values were not reached during two weeks after the beginning of treatment.
4. The administration of specific serum in uncomplicated fatal cases did not cause a material increase in cerebrospinal fluid sugar.
5. The cerebrospinal fluid chloride content was reduced in 60 per cent of the cases before treatment. In cases in which the chlorides were decreased, the administration of serum caused an increase to normal in cases in which there was recovery.

CONCLUSIONS

1. Increase in cerebrospinal fluid sugar during specific serum therapy is a favorable prognostic sign.
2. Failure of cerebrospinal fluid sugar to increase during serum therapy in patients older than 6 months is an unfavorable prognostic sign.
3. Failure of cerebrospinal fluid sugar to increase during serum therapy in patients younger than 6 months is not necessarily an unfavorable prognostic sign.
4. Quantitative determinations of cerebrospinal fluid chlorides do not give valuable diagnostic or prognostic information.

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TWENTY-SIX THOUSAND KAHN TESTS COMPARED WITH THE WASSERMANN

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A laboratory test for syphilis requires much critical study. In spite of the fact that it is frequently emphasized that such a test should be employed only as a clue to syphilis, to be corroborated by clinical evidence or a history of infection, many physicians consider a positive laboratory reaction as diagnostic of this disease. Therefore, any laboratory method that is to be of permanent value to the clinician must be capable of giving reactions of the highest degree of dependability. In view of the numerous shortcomings of the Wassermann test, the question arose whether any of the precipitation tests possessed superior features.

In 1920 an attempt was made in these laboratories to modify the Sachs-Georgi reaction so as to render its application more practical.[1] Soon after that Kahn published a description of his original precipitation method and gradually so perfected it as to make it apparently a reliable method for the serum diagnosis of syphilis. Preliminary studies in these laboratories during 1924 and 1925 led to the view that it would make an important check procedure on the Wassermann test as employed in this laboratory. Beginning with April 1, 1926, both the Wassermann and the Kahn tests have been performed on all blood specimens reaching the laboratory for the serum diagnosis of syphilis. A record of many thousands of Kahn tests has thus accumulated in comparison with the Wassermann test and will be discussed in this article.

TABLE 1.—*Comparative Results of 26,336 Wassermann and Kahn Tests*

	No. of Examinations
Complete agreement between both tests:	
Both tests ++++	3,831
Both tests negative	20,608
Relative agreement between both tests:	
Both tests ++++, +++ or ++	740
Discrepancies between both tests:	
Wassermann —, Kahn ++++	187
*Kahn —, Wassermann ++++	196
All other discrepancies	182
Total	25,744
Anticomplementary specimens in the Wassermann test:	
Wassermann anticomplementary, Kahn negative	102
Wassermann anticomplementary, Kahn ++++	70
Hemolyzed specimens unfit for either test	420
Total	592

* In the early part of this study, the Wassermann results were more sensitive. With better mastery of the Kahn technic, this test was more sensitive.

EXPERIMENTAL WORK

The Kahn test was performed according to the standard requirements.[2] The Wassermann test was conducted with two antigens—Kolmer and plain alcoholic—overnight icebox fixation, and antisheep hemolytic system. For comparative purposes, 26,336 Kahn-Wassermann tests have been chosen. These examinations, made from July, 1926, to March, 1927, are summarized in table 1, in which it is evident that of 26,336 tests there was complete agreement in 24,439, relative agreement in 740, and no agreement in 565. There were 172 specimens which were anticomplementary with the Wassermann test but which gave definite readings with the Kahn test, while 420 specimens were so hemolyzed that a reading with either method was impossible. Considering only the 25,744 specimens with which readings were obtainable by both methods, the absolute check was 94.9 per cent and the relative check 97.8 per cent. Early in the work there were more discrepancies in which the Wassermann test was positive and the Kahn test negative, but later on the reverse was true.

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[1] Hull, T. G., and Faught, Eva E.: Sachs-Georgi Precipitation Test for Syphilis, J. Immunology 5: 521-527 (Nov.) 1920.

[2] Kahn, R. L.: Serum Diagnosis of Syphilis by Precipitation, Baltimore, Williams and Wilkins, 1925.

An attempt was made to obtain the clinical histories of the cases in which discrepancies occurred between the two tests. Unfortunately it was impossible to obtain histories in many of the cases; but table 2 presents the Kahn-Wassermann results in 200 cases in which the results disagreed. It is interesting to note that in treated cases the Wassermann was positive and the Kahn negative in forty-six, while in seventy-eight the Kahn was positive and the Wassermann negative. This is in agreement with most workers—that the Kahn test is more sensitive than the Wassermann in treated cases.

In connection with the histories given in table 2, it is practically impossible to obtain unquestionable scientific data to establish absolutely the specificity of either the Wassermann or the Kahn test. It is a matter of common occurrence for clinicians to differ in their diagnosis as to the presence or absence of syphilis when obvious clinical data and history of infection are lacking.

Table 2—*Record of Two Hundred Cases in which the Kahn and Wassermann Tests Disagreed*

122 cases with positive *Kahn and negative Wassermann reactions.
  78 cases, treated syphilis
  1 case primary syphilis
  3 cases, accident cases
  2 cases, husband has syphilis
  3 cases, suspicious history of syphilis
  17 cases, *no history of syphilis*
  2 cases, tuberculosis
  3 cases, dermatitis
  2 cases, *psychosis*
  11 cases, miscellaneous conditions one each, chronic alcoholism, maternity cases, ulcerative stomatitis, abscess, abortion, bronchial asthma, dementia praecox, neurasthenia, neuritis

78 cases with negative Kahn and positive* Wassermann reactions
  46 cases, *treated syphilis*
  2 cases, no history, treated on Wassermann diagnosis
  14 cases, no history of syphilis
  1 case, secondary syphilis
  1 case, tabes dorsalis
  1 case, wife has positive Wassermann reaction
  13 cases, miscellaneous conditions, one each, optic atrophy, mustard gas, accident case, myocarditis, toxic thyroid, puerperal neuritis, rheumatism from infected tonsil, possible Charcot joint, hernia operation, gonorrhea, aortitis, pregnancy, chronic diabetes.

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* Positive = ++++, +++, ++ reactions

RELATIVE ADVANTAGES OF THE KAHN TEST OVER THE WASSERMANN

There is a tremendous saving in labor by use of the Kahn test, as will be noted in table 3. The preparation of the specimen requires the same amount of labor for the two; the only reagent for the Kahn test is antigen, which can be prepared and titrated at leisure at occasional intervals, while the Wassermann test requires daily attention to complement, amboceptor and sheep cells; in the actual performance of the tests, the Kahn also requires a lesser number of operations than the Wassermann test.

From the standpoint of time, the Kahn has everything in its favor, requiring only a few minutes to set up and read after the serum has been inactivated, against the eighteen hour icebox fixation which has been used in the laboratories of this department. Kahn tests can be set up in emergencies at any hour of the day or night, and results reported immediately. In the routine test reports can be sent out the same day received, while Wassermann reports have been delayed a day.

Table 3—*Comparative Labor in Setting up Kahn and Wassermann Tests*

Wassermann (Test complete in 18 hours)	Kahn (Test complete in 1 hour)
Preparation of Blood Specimens	
1 Centrifugalizing blood specimens	1. Centrifugalizing blood specimens
2 Removing serum from clot	2. Removing serum from clot
3 Heating serum at 56 C.	3. Heating serum at 56 C.
Preparation and Titration of Reagents	
4 Obtaining blood from guinea-pigs	
5 Removing complement from clot	
6 Titrating complement	
7 Obtaining blood from sheep	
8 Washing sheep cells	
9 Production of amboceptor (occasional)	
10 Titration of amboceptor (occasional)	
11 Production of antigen (occasional)	4. Production of antigen (occasional)
12 Titration of antigen (occasional)	5. Titration of antigen (occasional)
The Test Proper (Each Three Tubes)	
13 Adding patient's serum	6. Adding patient's serum
14 Adding antigen	7. Adding antigen
15 Adding complement	
16 Incubation, icebox overnight	
17 Adding amboceptor	
18 Adding sheep cells	
19 Incubation, water bath 30 min.	
	8. Shaking
	9. Adding salt solution
20 Reading results	10. Reading results

There is a considerable saving in cost of the Kahn over the Wassermann test. The cost of maintaining several sheep, a large flock of guinea-pigs and rabbits amounts to about $150 a month for these laboratories. While the laboratory always must have animals for other purposes, the Wassermann work requires the most.

The Kahn test often has the advantage of definite results with specimens that are anticomplementary with the Wassermann test or are so hemolyzed, contaminated or old that a Wassermann test cannot be run. This is no small item, since on several occasions it has been necessary to send back to the physician a second or even a third time for another specimen because one of the foregoing conditions prevented a Wassermann report being given.

The Kahn test has the advantage of simplicity. There is but one reagent to standardize. The whole hemolytic system of the Wassermann test, with its infinite number of woes, is eliminated. The Kahn test, therefore, has less possibility of technical error.

SUMMARY

Kahn and Wassermann tests were made on 25,744 specimens with relative agreement in 97.8 per cent. Clinical histories on 200 specimens in which the Wassermann and Kahn tests disagreed indicated that the Kahn test is more sensitive than the Wassermann test in treated cases. The advantages of the Kahn test are in the saving of labor, time and cost; in the definite character of Kahn reactions in specimens in which the Wassermann is anticomplementary; in comparative simplicity, and in reduction of technical errors.

RADIUM IN THE TREATMENT OF MENOPAUSAL HEMORRHAGE WITHOUT DEMONSTRABLE LESION *

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In women, the end of the reproductive function occurs at a more or less definite period called the menopause or climacteric, which bgeins at about 40 but varies in individuals and races. Local and general signs normally characterize this period, the local being confined to manifest retrogressive changes in the reproductive organs and the glands of internal secretion, while functional disturbances, affecting the general organism, are flushings with alternating heat and cold, increased nervousness, indigestion, and a variety of psychic disturbances, the vasomotor derangements being the most important.

As a rule, the menopausal period runs its normal course from one to several years without excessive hemorrhage or any exaggerated symptoms. Most women pass through this epoch and its irregularities, needing as treatment only rest during the continuance of the bleeding. The intervals of the bleeding tend to become longer and the menstruation less profuse.

Excluding the pathologic lesions that will cause excessive bleeding, such as polypi, myomas, inflammatory conditions and malignant disease, the cause of this bleeding, with a definite demonstrable lesion absent, is not known. Among the theories suggested are unequal ovarian activity, fibrosis of the endometrium, or faulty internal secretion. In this small but definite residual group, the bleeding is often so excessive and intractable as to provoke grave systemic disturbance. The patient loses her health and her position as an active and useful member of society, and it may be even life itself when the loss is so severe that the hematopoietic organs become so far impaired as to bring about a fatal anemia.

The accepted method of treating such severe hemorrhages has been until recent years necessarily surgical. A thorough dilation and curettage with the accompanying medical treatment often effected a cure, but failing in this we were too often forced to extirpative measures. It is in behalf of this group that I speak for a better treatment in reporting our results with radium. Radium therapy answers all the requirements of perfect relief, reducing the risks of treatment to that of a curettage. An antecedent careful history and physical examination with blood studies are indispensable. Cases presenting evidence of acute pelvic inflammation should not be treated. There is a definite group of patients whose mental status is abnormal and who are likely to react badly during the period of readjustment, and for this reason are not a favorable group.

The treatment is best given internally or within the uterus; but if for any reason the suprapubic route is elected, from 0.5 to 1 Gm. of radium ought to be at one's disposal.

Prior to the intra-uterine treatment, the patient is examined under gas anesthesia and a thorough dilation and curettage is done with immediate examination of the tissue. Here we have not found any definite type of endometrium predominating, as the picture varies from an abundant hypertrophic endometrium to a scanty atrophic type, which is contrary to the statements of other observers. The uterine cavity is thoroughly explored with the sound, curet and polyp forceps; without the latter instrument, curettage is incomplete. The radium, in the form of radon contained in a small brass capsule 1 mm. thick, nested in a second capsule of the same material and thickness and attached to the handle of a uterine sound, is introduced into the uterus. As a rule, three capsules of nearly equal strength are applied in tandem approximating in length the canal above the internal os. To bring about complete cessation, the 1,000 to 1,200 millicurie hours' radiation necessary is given at one treatment. The patient is kept in bed in one position by knee pillows and sand bags on each side to check undue movements during the application. The applicator is prevented from slipping by adhesive tapes fixing the handle to a sandbag lying between the legs. The worst discomforts are nausea and malaise and occasionally uterine cramps. As disagreeable symptoms rarely persist beyond twenty-four hours, only symptomatic remedies are necessary. The patient is often able to leave the hospital a few hours afterward to rest at home, but usually a stay of forty-eight hours is desirable. Those who are anemic and exhausted of course remain longer. It is rarely necessary to repeat such a treatment. An external treatment is given over both ovarian regions through the lower abdomen at a distance of 7 cm. from the skin surface screened with 2 mm. of brass and one of lead. An average of from 6 to 8 gram hours' exposure is given over each area. A combination of the two treatments is never necessary.

The modus operandi by which irradiation controls menorrhagia is an interesting study. Several explanations are offered; it may be possibly due to a direct action on the ovarian follicles, causing a failure of ovulation and so a cessation of menstruation; or, again, it may follow a sclerosis of the uterine blood vessels and atrophy of the uterus with destruction without regeneration of the endometrium.

In an experience embracing more than 1,000 intra-uterine applications not only in the type under discussion but in uterine fibroids as well, I have never seen a malignant condition as a direct sequel, nor am I aware of any authenticated case. Occasionally I have noted a sapremic infection following treatment due to a stenosis of the cervix relieved at once by a simple dilation. I do not see any basis for the alarming and, I believe, misleading assertions made by Aschner[1] to the effect that irradiation often produces conditions tending to shorten life, such as hypertonia, arteriosclerosis, arthritis, nerve disease, psychosis and apoplexy. Contrary to his statements that all menopausal hemorrhages are cured by medication and curettage, I present none in this report not previously treated medically, and a large number were curetted without relief.

I present 176 cases; thirty-two are omitted in the absence of a definite final report, leaving 144 from which to draw conclusions. The average age was 46 years, the youngest 40 and the oldest 67. Forty-one patients complained of a thin, watery discharge, lasting from two weeks to six months for an average of three months; in one it persisted for one year.

In eighty-five there was a complete cessation of the hemorrhage with no subsequent menstruation following the treatment. In fifty-four of the remaining fifty-nine, there were thirty-eight with one subsequent period, six with two, four with three, and one with four. These were all treated by the intra-uterine route, while in a group of five treated externally, one menstruated four times, one twice, two once, and one not

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* From the Howard A. Kelly Hospital.

[1] Aschner, Bernhard: Wien. klin. Wchnschr. 38: 699 (June 18) 1925.

showing improvement in four weeks was subjected to a hysterectomy elsewhere. In sixty-six patients there was a decided increase in weight after the artificial menopause, showing the advisability of supervision afterward. In only two patients did the hemorrhage return after six weeks, calling for further irradiation. The present health of all, with the few exceptions stated below, is excellent. Sixty-two complained of moderate hot and cold flushes with nervousness over a period varying from two months to two or three years. In three, these cessation phenomena were severe and lasted as long as five years. There was absence of serious mental sequelae. I did not encounter arthritic changes directly attributable to the treatment, nor was there any change in the blood pressure other than improvement. A definite pyometra occurring in three patients was relieved by a dilation of the cervix; one developed acute pelvic inflammation, and a hysterosalpingo-oophorectomy was performed two months later. There has not been a death from the treatment itself. One patient died four years later from an unknown cause, and another two years later from an unlearned cause. Two died, two and five years later, after gallbladder operations; one died of paralysis in eight years and another with a multiple sclerosis in nine years. One had pernicious anemia and died in six months; this was present at the time treatment was given. One patient, though living and free from bleeding, has a carcinoma of the bladder after four years, and still another has an exophthalmic goiter after five years. Of the original 144 patients, 137 are alive and well, a remarkable number living over a period of thirteen years, when one considers the age of the patients at the time the treatment was given. By years, 8 are alive and well for one year; 10 for two years; 18 for three years; 12 for four years; 17 for five years; 14 for six years; 9 for seven years; 12 for eight years; 11 for nine years; 9 for ten years; 8 for eleven years; 5 for twelve years, and 4 for thirteen years.

It is obvious, therefore, that intra-uterine radium therapy for menopausal menorrhagia is the treatment *par excellence*. It can be given without risk and is indicated in all cases in which there is not a satisfactory response to rest and the customary plans of treatment.

SUMMARY

1. With a single treatment, a complete cessation of the hemorrhages can be effected.
2. The local and general symptoms are usually of a shorter duration and less pronounced than in the unprovoked menopause.
3. Such serious sequelae as arthritis, arteriosclerosis, psychosis or untoward blood changes are not attributable to the new agency.
4. There is an invariable improvement in health and a feeling of betterment.
5. An internal application is preferable in that it secures the opportunity for thorough examination under gas, with curettage to check immediate hemorrhage as well as the imperative, never-to-be-neglected pathologic study of the endometrium.
6. Radium is further most desirable when the patient is too ill to submit to surgery.
7. The gynecologist should therefore give the first place in his consideration to radium in all severe hemorrhages of a benign nature at the time of the menopause.
8. Should radium fail, in rare instances, an operation can still be done.

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EPILEPSY IN CHILDHOOD *

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Idiopathic or essential epilepsy is a chronic disease of the nervous system characterized by periodically recurring convulsions, lapses or abnormal mental states occurring in individuals with a personality defect or constitutional inferiority but with no demonstrated pathologic lesion. The personality defect or constitutional inferiority is probably an inherited defect and can be demonstrated in the behavior disturbances and reaction patterns that distinguish epileptic children.[1] These children in the early stages of the disease are usually mentally precocious; they are excitable, highly emotional and self-centered, and they lack power of concentration. It is only later in the disease, after repeated seizures have definitely injured the brain, that the mental deterioration and apathy become manifest. The opinion regarding the inheritance of the personality defect is based on a study of more than 500 histories of epileptic children. In these a family history of migraine, nervous instability, epilepsy, insanity, syphilis and alcoholism was found in 54 per cent.[2] It must be borne in mind that in most instances it is rather difficult to obtain a family history of any of these conditions.

The character of the disease, the usual progressive degeneration, and the constitutional defect classify epilepsy with the heredofamilial degenerations or abiotrophies. The etiology of the disease is not known and the diagnosis is still made by exclusion. A satisfactory classification of epilepsy remains to be made. The disease may begin at any age but is not common in the first few years of life. In the majority of cases the onset occurs before 20 years of age, and in more than half, before 15. Infantile convulsions have been noted in only 5 per cent of my cases. Children with spasmophilia rarely develop epilepsy. In the majority of children the progress of the disease is slow but nevertheless continuous, and a gradual increase in frequency and severity of attacks with a gradual mental degeneration is the usual rule. In about one half of the cases epilepsy begins with petit mal attacks. The majority of these children, if untreated, gradually develop grand mal convulsions. Given a predisposition to epilepsy by heredity, other factors seem necessary for the development of the disease. The immediate cause of the epileptic convulsion, the factor that allows the end-result or explosion, is probably a disorder of the metabolism and may be a shift of the acid-base equilibrium toward the alkaline side.[3] The tendency toward alkalosis is not the only factor, since this may occur without provoking a convulsion.[4] Between attacks, the neutrality regulation [5] and the general metabolism of epileptic patients [6] seem to be normal. However, the capricious and inordinate appetite; the common history of constipation, of "stomach trouble," and of "food reactions"; the periodic recurrence of attacks; the nature of status epilepticus; the increased toxicity of the urine obtained during attacks—all suggest coincident if not primary metabolic disorder.

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* From the Milwaukee Children's Hospital.

* Read at the University of Wisconsin Medical School, March 7, 1927.

[1] Clarke, L. P.: Clinical Studies in Epilepsy, Utica, N. Y., State Hospitals Press.

[2] Peterman, M. G.: Epilepsy in Childhood, Am. J. Dis. Child. **32**: 416 (Sept.) 1926.

[3] Peterman, M. G.: J. Diet. Adm. and Therap. **4**: 23 (Jan.) 1926. Rafflin, R., and Claude H.: Compt. rend. Soc. de biol. **92**: 1361 (May 22) 1925; **92**: 1429 (May 29) 1925. Haig, A.: Neurol. Centralbl., 1888. Schon, H. I., and Stube, H. P.: Hospitalstid. **68**: 49 (Jan.) 1925. Georgi, F.: Klin. Wchnschr. **4**: 2053 (Oct.) 1925.

[4] Peterman (footnote 2). Rafflin, R.: Compt. rend. Soc. de biol. **92**: 1429 (May 29) 1925. Frisch, F., and Fried, E.: Ztschr. f. d. ges. exper. Med. **49**: 462 (April) 1926.

[5] Jensen: Hospitalstid. **68**: 715 (July) 1925.

[6] Talbot, F. B.: Hendry, Mary; and Moriarty, Margaret: The Basal Metabolism of Children with Idiopathic Epilepsy, Am. J. Dis. Child. **28**: 419 (Oct.) 1924.

One of the most important factors in our present study of idiopathic or essential epilepsy is a differential diagnosis that will separate this disease from other conditions causing similar convulsions.[7] The differential diagnosis of convulsions in infancy and childhood often presents great difficulties.[8] Encephalitis residues, cerebral birth injuries, brain tumors, and spasmophilia may simulate epilepsy in great detail. Except for spasmophilia, these diseases have a definite organic basis.[9] No consistent pathologic lesion has been demonstrated in epilepsy.[10] Physical examination of the epileptic patient does not reveal essential abnormalities. Roentgenograms of the skull do not show defects; the optic disks and vessels are usually normal. The mouth, however, often shows a narrow, high-arched palate and the pharyngeal reflex is often exaggerated. All other reflexes are usually normal. Preceding or during an attack there is often an imbalance of the vagus and sympathetic nerves causing a dilatation of the pupils, an increased pulse rate, and an irregularity in the gastro-intestinal rhythm. The result is often gastric and intestinal stasis. The patient may vomit undigested gastric contents taken twenty-four hours previously. Between attacks this irregularity is seldom demonstrated. The morphology and the chemistry of the blood do not present abnormal changes between attacks.[11]

The treatment of epilepsy may be summarized in a few words: diet, phenobarbital (and its salts) and psychotherapy. The influence on the psyche is well demonstrated by the following observations: Children seldom have attacks in the physician's office; a complete change of environment usually causes a temporary cessation of attacks. A child with numerous convulsions daily may have a complete cessation after he is placed in the hospital. The attacks may often be absent for several weeks without other treatment. If the child is taken out, he may have a recurrence before he reaches his home.

Phenobarbital is rapidly supplanting bromides and is by far the drug of choice in the treatment of this disease. The dosage must be carefully regulated as to the amount and the time of administration. This drug has little effect on petit mal.

The most striking and effective treatment of epilepsy is starvation. This treatment, advocated by Guelpa and Marie[12] in 1910, was carried out by Geyelin[13] and further developed by Conklin,[14] Lennox,[15] Hoeffel,[16] Shaw[17] and others.[18] Starvation can be used only as a temporary procedure, and when food is again given the attacks recur. During fasting and coincident with the improvement in the epilepsy, certain changes have been observed in the blood chemistry. There is a considerable increase in the excretion of ketone bodies in the blood, alveolar air, and urine;[19] an increase in the blood uric acid,[20] a slight drop in the blood p_H;[21] and usually a fall in the blood sugar.[22] The fall in blood sugar is not a constant factor.[23] I have recently starved five epileptic patients fourteen days during which time the blood sugar did not drop below 78 mg. The nitrogen constituents, and the calcium, phosphorus and chlorides, show little change.[24] The lowering of the carbon dioxide combining power of the plasma[15] is not below the lower limits of normal.[23]

It was suggested by Geyelin[13] and Jarloev,[22] and recently by Talbot,[18] that acidosis was the factor responsible for the influence of starvation on epilepsy. Wilder[25] originally advanced the hypothesis that the ketone bodies were responsible. He therefore proposed a high fat diet for the treatment of epilepsy.

The ketogenic diet for the treatment of epilepsy in childhood was described in 1924.[26] The diet was the result of an effort to reproduce the ketosis, the tendency to acidosis, produced in starvation. It was found possible to control most cases of epilepsy with sufficient food to allow normal growth and development. The diet is a low carbohydrate, low protein, high fat ration adjusted for the individual patient. It is preceded by at least one week of starvation, or a longer period if necessary, until the attacks cease. During the starvation the patient is kept in bed and may be given water, clear broth, and bran wafers (no food value) freely. From 6 to 8 ounces of orange juice is allowed daily. At the end of the starvation period the prescribed diet is started abruptly.

The basal metabolic requirement is calculated according to the Du Bois tables. From 25 to 30 per cent additional calories are allowed for energy exchange. The requirements may be simply calculated at 30 calories per pound.[27] The total allowance should not exceed 1,800 or 2,000 calories. Further adjustment is made to keep the weight at or slightly below normal for the patient's age and height. Overweight patients are not commonly seen. They are allowed to reduce the weight to normal. Children under 5 years of age are given a daily allowance of 20 Gm. of carbohydrate and 1 Gm. of protein per kilogram of body weight, with the remaining calories supplied in fat. Children over 5 years of age are given from 15 to 20 Gm. of carbohydrate, ⅔ Gm. of protein, and the remaining requirement in fat. The vitamins and mineral salts must be supplied. Water is allowed freely. Salt is used to season. On the next page is a sample menu for one day on a prescription of carbohydrate, 15 Gm.; protein, 25 Gm.; fat, 180 Gm.

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[7] Peterman (footnote 2). Gibbs, C. E.: Am. J. Psychiat **5:** 415 (Jan.) 1926. Peterman, M. G.: Wisconsin M. J. **25:** 18 (April) 1926.

[8] Peterman (footnote 7, third reference).

[9] Krumholz: J. Nerv. & Ment. Dis **40:** 17 (Jan.) 1913. Lucas and Southard: Boston M. and S. J. **166:** 323 (Aug.) 1912; **169:** 341 (Sept.) 1913. Tilmann: Arch. f. klin. Chir. **92:** 496, 1910.

[10] Alzheimer: Monatschr. f. Psychiat. u. Neurol. **4:** 345, 1898; Centralbl. f. Neurol. u. Psychiat. **27:** 497, 1904; Allg. Ztschr. f. Psychiat. **46:** 418, 1907.

[11] Peterman, Rafflin and Claude, Haig, Schon and Stube, Georgi (footnote 3). Jensen (footnote 5). Talbot (footnote 6).

[12] Guelpa, G., and Marie A.: Bull. gén. de thérap. **160:** 616, 1910.

[13] Geyelin, H. R.: M. Record **99:** 1037, 1921.

[14] Conklin, W. H.: J. A. Osteopath. A, September, 1922.

[15] Lennox, W. G.: Increase of Uric Acid in the Blood During Prolonged Starvation, J. A. M. A. **82:** 602 (Feb. 23) 1924.

[16] Hoeffel, G. N., and Moriarty, Margaret E.: The Effect of Fasting on the Metabolism of Epileptic Children, Am. J. Dis. Child. **28:** 16 (July) 1924.

[17] Shaw, E. B., and Moriarty, Margaret E.: Hypoglycemia and Acidosis in Fasting Children with Idiopathic Epilepsy, Am. J. Dis. Child. **28:** 553 (Nov.) 1924.

[18] Talbot, F. B.; Metcalf, K. M., and Moriarty, Margaret E.: Epilepsy, Am. J. Dis. Child. **33:** 218 (Feb.) 1927..

[19] Geyelin (footnote 13). Gamble, J. L.; Ross, G. S, and Tisdall, F. F.: J. Biol. Chem. **57:** 633 (Oct.) 1923. Peterman, M. G.: Wisconsin M. J. **25:** 427 (Sept.) 1926.

[20] Lennox (footnote 15). Lennox, W. G.; O'Connor, Marie F., and Wright, L. H.: Studies of the Metabolism in Epilepsy, Arch. Neurol. & Psychiat. **11:** 54 (Jan.) 1924.

[21] Geyelin (footnote 13). Gamble, Ross and Tisdall (footnote 19).

[22] Geyelin (footnote 13). Hoeffel and Moriarty (footnote 16). Shaw and Moriarty (footnote 17). Gamble, Ross and Tisdall (footnote 19). Peterman (footnote 19). Jarloev, E.: Compt. rend. Soc. de biol. **84:** 156, 1921.

[23] Brown, M. J., and Graham, G.: Arch. Dis. Childhood **1:** 303 (Oct.) 1926.

[24] Hoeffel and Moriarty (footnote 16). Shaw and Moriarty (footnote 17). Gamble, Ross and Tisdall (footnote 19). Peterman (footnote 19).

[25] Wilder, R. M.: Mayo Clinic Bull. **2:** 307, 1921.

[26] Peterman, M. G: The Ketogenic Diet in the Treatment of Epilepsy, Am. J. Dis. Child. **28:** 28 (July) 1924.

[27] Peterman, M. G.: Am. J. Nursing **26:** 267 (April) 1926.

The diet may be made palatable and attractive. The cooperation of the child must be enlisted and he must be carefully protected against all temptation. Any tendency to nausea or emesis can be quickly controlled with orange juice. Concomitant with the ketosis, when diacetic acid appears in the urine the attacks usually cease or are greatly diminished in number. If the convulsions continue, the carbohydrate may be reduced to 10 Gm. and the fat pushed to the limit of tolerance. When the attacks are under control, the diet is continued for three months even through all ordinary illnesses. If there have not been further attacks, the carbohydrate is increased 10 Gm. After another month of freedom, the carbohydrate may again be increased. This procedure is continued until the carbohydrate reaches 50 Gm. At this time the fat may be reduced 15 or 20 Gm. During the next six months the carbohydrate may be increased 10 Gm. on alternate months, and the protein 5 Gm. alternating with the carbohydrate. The fat may be decreased every three or six months in proportion. No definite rule can be given. The changes are made according to the reaction of the individual. Contrary to the view expressed recently,[28] high fat diets in epileptic children almost always produces constipation. Liquid petrolatum and agar preparations are administered to assure a daily bowel movement.

The ketogenic diet produces a ketosis with a tendency toward an acidosis.[29] Acetone appears on the breath within two to three days after the diet is instituted, and in the blood and urine on the third and fourth days. The acetone bodies may increase from two to forty times normal.[23] The increase is usually followed by a fall in the alkali reserve. The carbon dioxide combining power, however, is usually not reduced below the lower limits of normal.[30] There may be a concomitant fall in the blood sugar, but this is not constant.[30] The blood sugar seldom drops below 70 mg. The calcium, phosphorus and chlorides are not affected.[23]

Sample Menu

Breakfast	Dinner	Supper
60 Gm. fruit, 10 per cent 20 Gm bacon (fat) 1 bran cake 28 Gm butter	Beef broth 20 Gm. vegetables, 20 per cent 25 Gm. vegetables, 3 per cent 25 Gm. salad dressing 44 Gm. butter 40 Gm. steak Jello, special recipe	25 Gm. vegetables, 3 per cent 25 Gm. salad dressing 16 Gm butter Ice cream, special recipe

In May, 1925, the opinion was offered that both ketosis and a tendency toward acidosis were necessary for the control of convulsions with the ketogenic diet.[29] It was demonstrated that ketosis alone or acidosis alone was not sufficient to control attacks. During the last two years the further observation has been made that the protein is a factor of greater importance than has been heretofore considered. Protein in itself is not harmful, nor is the anaphylaxis or protein sensitization theory to be considered; but the specific dynamic action, and possibly the end-products of protein, the amino-acids and the glucose derived seem capable of harmful results. Patients make much better progress if the protein is restricted carefully for the first year. It has been demonstrated that children over 5 years of age will make normal growth and development and will maintain a positive nitrogen balance on ⅔ Gm. of protein per kilogram of body weight. This observation is substantiated by the recent report of Bartlett.[31]

The success of the ketogenic diet in the treatment of epilepsy is entirely a question of the ability to carry out the prescribed diet in careful detail. There must be a selection of cases—better perhaps, a selection of parents who are willing to cooperate and able mentally and financially to carry out the diet at home. The selection of cases also must exclude all patients with any evidence of organic lesions, and those patients who late in the disease have reached the stage of mental degeneration. If the diet is properly carried out, the proportions of carbohydrate, protein and fat may be gradually reversed to normal while the attacks are kept under control. Fourteen epileptic children have completed the ketogenic diet treatment and are now on normal diets. All these children have been free of epileptic attacks for from six months to three years after the change to normal diet.

167 Seventeenth Street.

DOES NORMAL KIDNEY TISSUE PERMIT THE PASSAGE OF TUBERCLE BACILLI?

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AND
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Whether normal kidney tissue will permit the passage of tubercle bacilli from the body into the urine is a matter of utmost importance, and to answer this question conclusively is the aim of this report.

If it can be proved that the tubercle bacillus does not pass through the normal kidney, the following points are of value to the practicing physician and to the patient:

First, if a given patient has had tubercle bacilli in the urine at any time, as demonstrated by guinea-pig inoculation, and such a person comes to autopsy, the absence of a tuberculous lesion in the kidney or any other part of the genital or urinary tracts would be good evidence to show that tuberculosis of the kidney could heal spontaneously. And if this occurred often enough to preclude the probability of error, it would be proof of such spontaneous healing. Until this work is done in this way, however, there is no justification for such a statement; and there is no justification for the statement that such spontaneous healing cannot occur; in fact, there does not seem to be evidence enough on hand to justify discussing such a question at present.

Second, the presence of tubercle bacilli in the urine would be positive evidence of tuberculosis in the genital or urinary tract, unless work in the future could demonstrate that the tubercle bacillus passes through diseased renal epithelium, such disease being other than tuberculosis. This, however, is extremely unlikely, for, during the last few years, all the evidence has tended to prove that the tubercle bacillus is not found in the urine except in the presence of tuberculous lesions of either the genital or the urinary tract.

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[28] Smith, Florence H.: The Use of High Fat Diets for Constipation, J. A. M. A. **88**: 628 (Feb. 26) 1927.

[29] Peterman, M. G.: The Ketogenic Diet in Epilepsy, J. A. M. A. **84**: 1979 (May) 1925.

[30] Peterman (footnote 19). Brown and Graham (footnote 23).

[31] Bartlett, W. M.: Protein Requirement as Determined in Diabetic Children, *Am. J. Dis. Child.* **32**: 641 (Nov.) 1926.

Third, it would be justifiable to undertake measures for the cure or relief of tuberculosis in one or the other of these tracts on this evidence alone without waiting for demonstrable lesions. This would be of great advanatage because attempts made before much harm is done would have greater chance of success.

With these thoughts in view, we have undertaken the following work: One hundred and three pigs were injected with urine from male patients suffering from active pulmonary tuberculosis, most of the patients being in rather advanced stages of the disease, following the plan to be related later.

As we had in a previous series of 100 cases four positive pigs,[1] we determined to be more rigid in our definition of what constituted a normal urine, our belief being that an abnormal urine would not emanate from normal renal epithelium, and that, vice versa, normal urine would be the best sign we could have of normal renal epithelium.

Urine to be inoculated was collected and examined as follows: The patient, not having voided for three hours prior to the time of collection, had the penis washed with soap and water and then cleansed with a solution of mercurochrome-220 soluble, 1:1,000, after which he urinated into two large tubes, the first of which was discarded and the second used for analysis. The second urine was examined for sugar and for albumin by the usual chemical tests. A microscopic examination was then made for casts, white blood cells, red blood cells, and excess of epithelial cells. If any of these elements were found to be present, the urine was not used, but having been found free from such substances, it was inoculated into a guinea-pig.

TECHNIC AND RESULTS

One ounce of accepted urine was divided into two sterile centrifuge tubes and centrifugalized at high speed for twenty minutes. The supernatant part of the urine was thrown away and the sediment from both tubes mixed with 5 cc. of sterile salt solution and injected intraperitoneally into the pig.

Each pig so injected was examined by the pathologist at the end of six weeks, or sooner, if it died. The pathologist's examination included inspection of the inoculation site and the regional lymph nodes. Then the abdominal and thoracic cavities were opened and the serous surfaces and all organs were examined. If a gross lesion of any part was noticed, it was examined microscopically by means of paraffin sections.

Not one of the 103 pigs so injected showed, as the result of the foregoing examination, any evidence of tuberculosis.

COMMENT

Despite Wyssokowitsch's statement, made in 1886, that the removal of micro-organisms out of the system is not a function of the kidney, and that the urine would not contain micro-organisms injected into the circulatory system until sufficient time had elapsed to produce kidney lesions, and despite the fact that all subsequent carefully done work corroborates this statement, the assertion to the contrary keeps cropping up. The peculiar part about such assertions is that their makers do not seem to have to prove them as is commonly done, but merely assume them to be true. In 1896 Albarran accepted as a fact that the normal kidney permitted the passage of micro-organisms, and shortly thereafter included the tubercle bacillus in this statement.

The excellent work of Helmholz[2] and his associates during the last two years has quite conclusively proved that certain micro-organisms, with which he experimented, are not filtered out by the normal kidney tissue, although he did not include work with the tubercle bacillus in his investigations; and while micro-organisms injected into the blood stream eventually appeared in the urine, their appearance did not take place until after they had created lesions of the kidney, the conclusion being that normal renal epithelium would not permit the passage of micro-organisms.

Work has been done, however, for the past quarter of a century with tubercle bacilli for the purpose of determining whether they pass through normal renal epithelium, with varying results, dependent on when the work was done. While the work done previous to 1905 led to the belief that normal renal epithelium could permit the passage of the tubercle bacillus, all of that work is open to criticism, the results having been obtained by experimentation which was extremely faulty; by unjustified deductions; by a combination of the two, or by mere acceptance of the idea mentioned above, that since it was true that the normal renal epithelium permitted the passage of tubercle bacilli, it did not require proof.

For instance, Walsh[3] found that 82.5 per cent of the guinea-pigs inoculated with the urine of patients suffering from tuberculosis contracted tuberculosis. Since such high figures have not been found by any worker in the last twenty years, it is better to consider the percentage as considerably less.

Other work, such as that done by Foulerton and Hillier,[4] while carefully done, is not entitled to have conclusions drawn therefrom for the following reason: They carefully examined kidneys at autopsy but did not find tuberculous lesions of such kidneys, although the urine from the individuals concerned had infected guinea-pigs with tuberculosis. They did not examine the genital tract, and since the genital tract and the urinary tract have a common opening in the male, their work does not prove anything.

Young and Churchman,[5] feeling that this work was not conclusive, showed that the smegma bacillus exists in the anterior urethra in a large number of people. Since it is difficult to differentiate the smegma from the tubercle bacillus in any way except by inoculation, it is manifest that a large source of error in the early work was due to the confusion of the smegma bacillus with the tubercle bacillus under the microscope. Only work can be accepted, therefore, which demonstrates the tubercle bacillus by means of inoculation, as not only the smegma bacillus but also artefacts might be mistaken for the tubercle bacillus.

Some other sources of error are the numerous possible chances of contamination from tuberculous patients in institutions for the tuberculous, in which most of the attendants suffer from tuberculosis, when specimens are collected for inoculation into guinea-pigs. These errors can, and do, account for some of the inexplicable cases in which the pigs show tuberculosis, and careful autopsies on such patients fail to show lesions of either the genital or the urinary tract. Were such instances frequent, this would be an argument for the passage of tubercle bacilli through normal renal epithelium; but their extreme rarity leads one to believe that either the sources of contamination mentioned above were responsible for the guinea-pig infection and that no tubercle bacilli really existed in the urine inoculated, or that the examination of the patient's organs, post mortem, was not sufficiently searching. But these inexplicable cases by no manner of means give one the right to assume that the tubercle bacillus may pass through normal epithelium in the kidney.

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[1] Spitzer, W. M., and Williams, W. W.: The Significance of Tubercle Bacilli in the Urine, Interstate M. J. **24**: 974 (Oct.) 1917.

[2] Helmholz, H. F., and Millikin, Frances: Kidney: A Filter for Bacteria, Am. J. Dis. Child. **29**: 497 (April) 1925.

[3] Walsh, quoted by Bonney: Pulmonary Tuberculosis and Its Complications.

[4] Foulerton and Hillier: Brit. M. J. **111**: 774, 1901.

[5] Young and Churchman: Am. J. M. Sc., 1905.

One of these cases, recently reported,[6] is quite typical of such additions to the literature on the subject. The author cites a case of a girl, aged 13 years, whose ureters were catheterized and the segregated urines injected into pigs. The pig injected with the urine from the right kidney developed tuberculosis, while its fellow injected with the left kidney urine did not show evidence of disease. The girl was suffering from pulmonary tuberculosis at the time, and shortly thereafter died as the result of a pulmonary hemorrhage. Autopsy showed pulmonary tuberculosis but failed to show gross or microscopic evidence of tuberculous disease in either the bladder or the kidney. The fallacies present in this case are, first, that the urine from the kidneys was not examined microscopically for pus or other evidence of disease, because, the reporter states, there was so much blood that this was impossible; and second, in such a case, serial sections should have been made of such a kidney until either the lesion was found, or by this means, positive proof existed of the lack of such lesion.

The work of F. Bedo Hobbs[7] is extremely interesting. In reviewing 1,000 autopsies of persons who died of tuberculosis, he finds that 16.2 per cent had tuberculosis of the kidney, and that very few of these had symptoms referable to the urinary or genital tracts. He further finds that a very much larger percentage than just stated (in fact, double the number) show tuberculosis of the kidney when careful sections are made, whereas the first percentage showed tuberculosis of the kidney visible to the naked eye.

He injected 100 pigs with urine from patients suffering from active pulmonary tuberculosis and found that six of these pigs showed tuberculosis. Before injection the urines were carefully examined and twenty-three were found to contain casts; hyaline or granular in most, epithelial in four. A "few pus cells" were found in 79 per cent of these cases. Six of these pigs on autopsy showed tuberculosis and two of these cases came to autopsy, no attempt being made to discover any tuberculous lesions in the urinary or genital tracts of these patients before death. While one of these cases showed tuberculosis of the kidney, the other did not show such lesions or lesions in the genital organs. The same criticism applies to this work as to the work of Noyes;[6] namely, that sources of contamination were not excluded, and careful microscopic examination of the kidney and genital organs was not made.

Until frequent reports of careful work demonstrate the reverse, i. e., that tubercle bacilli are found in urines of people suffering from pulmonary tuberculosis without demonstrable lesions in any parts of the urinary tract, such a statement as that made by Kelly and Burnam must be accepted, that the demonstration of the tubercle bacillus in the urine of the female "clinches the diagnosis" of urinary tuberculosis and is positive evidence that one or both kidneys are involved.

As has been stated, not one of our 103 pigs developed tuberculosis. In our series reported in 1917[1] we found pus cells in the urines of each of the four patients whose corresponding pigs developed tuberculosis, and we believe that the work done then was not sufficiently careful as regards the microscopic examination of urine before inoculation.

Had we found pigs with tuberculosis, it was our intent to attempt by careful examination, as in our previous series, to demonstrate the lesion from which these bacilli originated. In our work of 1917 we were able to demonstrate tuberculosis of either the genital or the urinary tract in three of the four patients corresponding to the tuberculous pigs; the fourth died of acute general miliary tuberculosis before we could examine him, and we were unable to obtain an autopsy.

All of the foregoing argument seems superfluous in the light of our present-day knowledge of the physiology of the kidney. Cushny,[8] in his expression of the "modern view" of the secretion of urine, maintains that all the contents of the plasma of the blood are filtered through the glomeruli into Bowman's capsule, except those which are in colloidal suspension, the latter being too large to pass through any membrane by osmosis. If, then, these colloids are too large, and yet are infinitely smaller than the micro-organisms we recognize, how can the large nonmotile tubercle bacillus pass through this uninjured membrane?

CONCLUSIONS

1. The tubercle bacillus does not pass through normal renal epithelium.
2. The tubercle bacillus appears in the urine only when tuberculous lesions exist either in the urinary tract or in the genital tract.

THE TREATMENT OF INOPERABLE AND POSTOPERATIVE TUBERCULOSIS OF URINARY TRACT *

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This is a description of the methods of the treatment of inoperable and postoperative urologic tuberculosis as it is administered at the Urological Department (James Buchanan Brady Foundation) of the New York Hospital.

During the spring of 1926 a special department was established for the investigation and treatment of inoperable and postoperative urologic tuberculosis. This department was established for the following reasons:

It had been found that urogenital tuberculosis is an increasingly important part of urologic work. The modern methods of diagnosis, such as the determination of renal function, genito-urinary roentgenologic studies, the wider usage of guinea-pig inoculations, etc., have shown that the genito-urinary tract is a not infrequent site for tuberculosis. It has therefore followed that a larger number of these patients are appearing for care and treatment.

The treatment of genito-urinary tuberculosis is essentially surgical when the tuberculous lesion can be entirely extirpated in an individual who is healthy otherwise and the local tuberculous lesion is not part of a general active tuberculosis. That is the accepted treatment today and there is ample support in medical literature to uphold it. But there are a number of patients who have bilateral lesions or other additional foci of active tuberculosis and are thus as a rule inoperable. In addition to the inoperable patients, the after-treatment of those who have been operated on is frequently prolonged and requires special local and general treatment.

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[6] Noyes, I. H.: Urol. & Cutan. Rev. 30: 655 (Nov.) 1926.

[7] Hobbs, F. B.: Tubercle, 5: 57 (Nov.) 1923.

[8] Cushny, A. R.: The Secretion of the Urine, New York, Longmans, Green & Company, 1926.

* Read before the Rockaway Medical Society, Dec. 17, 1926, Lawrence, Long Island, N. Y.

* From the Department of Urology (James Buchanan Brady Foundation) New York Hospital.

At the New York Hospital there have long been ample and adequate facilities for the diagnosis and surgical treatment of urologic tuberculosis. The inoperable and postoperative patients had heretofore been cared for in conjunction with the general urologic cases.

In view of the steadily diminishing general death rate of tuberculosis it seems that the measures taken to care for the disease are succeeding, so it was decided to establish this special department for these inoperable and postoperative urologic tuberculous patients and to utilize the general treatment of tuberculosis together with the special urologic care. Thus the reason for the establishment of the new department, which is apparently one of the first of its kind, is for the purpose of combining with the urologic treatment the procedures that have been found to be of value in the treatment of general tuberculosis.

As the result of this plan, the treatment of the inoperable and postoperative patients is administered along two lines, the special urologic treatment and the general and special treatment of tuberculosis.

The special urologic treatment is carried on by the urologist, Dr. William R. Delzell, who is associated with this department. The treatment varies according to the indications in each case but it may be described as including bladder irrigations, bladder instillations, prostatic treatments, fulguration of bladder ulcers, cystoscopic observations and ureteral catheterizations. A number of the patients suffer considerably from tuberculous cystitis as a complication, and the palliation of this distressing condition while the general tuberculosis treatment is being carried on is one of the difficult urologic problems. A great many remedies and procedures have been tried without very much success. At present methylene blue is administered internally and applied locally in the form of an alkaline instillation and it is giving fairly good results.

The general treatment of tuberculosis, that is, fresh air, rest and good food, is prescribed for all patients. They are advised to remain in the open air as much as they can and to sleep in a well ventilated room. The value of rest is emphasized to each patient, and they are urged to rest regular periods daily. Diets are suggested as indicated; that is, where it seems advisable to increase weight, foods are recommended for that purpose. The diet problem is increased by the necessity at times of selecting foods that will not irritate the diseased genito-urinary tract.

It is, of course, difficult to carry out the fresh air, rest and dietary care of tuberculosis systematically outside a sanatorium; nevertheless, constantly stressing these measures is productive of good results.

In addition to the general treatment of tuberculosis, some of the special measures that are in use to treat the disease are also utilized. Tuberculin is administered in suitable cases. Koch's old tuberculin is prepared in serial dilutions and given hypodermically. Good reports have been made of the value of tuberculin in the treatment of this type of patients at some of the European clinics, and it has a place in the treatment of selected cases. Avoidance of reactions, which implies careful use of tuberculin, seems to give the best results when this subsidiary agent is being used.

Another of the special measures is the mercury vapor quartz lamp, and it is very useful. It is almost a specific in the treatment of postoperative tuberculous sinuses of the genito-urinary tract. The sinuses following nephrectomy for renal tuberculosis, epidymectomy and orchidectomy for tuberculosis yield readily to the lamp treatment. Bilateral tuberculosis of the epididymides or testes either before or after the disease has suppurated and formed external sinuses can well be given this treatment with the idea that it will help to localize and arrest the lesion as well as to help prevent its further extension.

The mercury vapor quartz lamp is also used for tuberculous cystitis, applied in the same manner as in the treatment of tuberculosis of the intestine, in which it has given good results. The tuberculous cystitis patients are given biweekly treatments over the bladder region. It is planned to also try intrabladder treatment for these patients, with a special applicator and the water cooled mercury vapor quartz lamp. The inoperable renal tuberculosis patients are given lamp treatments over the kidney regions. The results from this type of treatment are as yet uncertain, but the patients seem to feel that they are benefited.

Heliotherapy is a very valuable adjunct, and when it is feasible it is added to the general care. Sun treatment of patients with disease of the genito-urinary tract is of course difficult to carry out in a large city where the patients are living at home.

The foregoing is a brief outline of the treatment of postoperative and inoperable urologic tuberculosis as we are administering it. Better to describe the kind of cases under treatment, a few representative types have been selected.

REPORT OF CASES

The first patient has inoperable bilateral renal tuberculosis:

Case 1.—A woman, aged 24, married, Italian, whose family and past personal history are irrelevant, began to have dull aching pain in both kidney regions during October, 1925, frequency of urination both day and night, burning on urination, noticeable hematuria at times, and she seemed to lose strength. During January, 1926, she came under the care of Dr. Oswald S. Lowsley. Cystoscopy showed cystitis. The phenolsulphonphthalein test and urea test to determine the renal function showed that the right kidney seemed to be functioning correctly but the left kidney function was diminished. The roentgenologic study, which included pictures of the entire genito-urinary tract with pyelograms, was indicative of renal tuberculosis. Guinea-pig inoculations with urine from the right ureter and from the left ureter were positive for tuberculosis.

It was decided that the patient had bilateral renal tuberculosis which was inoperable, and she went away to the country for a few months. During April, 1926, she became a patient at the urologic tuberculosis clinic. She was advised regarding fresh air, rest, diet and heliotherapy. She attended the clinic twice each week and has been given serial dilutions of old tuberculin hypodermically and biweekly treatment with the mercury vapor quartz lamp over the bladder and kidney regions. One grain (0.065 Gm.) of methylene blue three times a day was prescribed five days each week for the burning and painful urination.

She improved a great deal and has only occasional bladder pains and no urinary symptoms except frequency. She has gained 16 pounds (7 Kg.) and has regained considerable strength.

The next case is descriptive of the postoperative treatment following nephrectomy for uncomplicated unilateral renal tuberculosis:

Case 2—A man, aged 40, married, Irish American, stone worker, whose family and past personal history are irrelevant, noticed in October, 1925, that the urine was dark red This persisted and was not accompanied by pain, dysuria, frequency, burning of urination or any other symptoms He did not lose weight or strength and his appetite was good He consulted his private physician soon after the onset of the hematuria, but it did not clear up under ordinary therapeutic procedures He consulted Dr Lowsley during March, 1926 Cystoscopy showed the vesical fundus slightly congested, the ureteral orifices prominent, and near the ureteral ridge a little sacculation of the right one, the vesical orifice showed moderate intrusion of the subcervical group with a little irritation on the surface The function tests showed diminution of the function of the right kidney as follows The urine from the right ureter appeared milky and contained only 2 5 Gm of urea per liter, while the urine from the left ureter was clear and contained 11 Gm of urea per liter The phenolsulphonphthalein appeared from the right ureter in seven minutes and there was only a faint trace excreted in ten minutes, while it appeared from the left ureter in four minutes and 11 per cent was excreted in ten minutes Guinea pig inoculations from each ureter were negative for tuberculosis The roentgenologic study showed the right kidney large and in good position, the left kidney did not appear very clearly but it also seemed to be large and in good position there was no evidence of stone in the urinary tract In the right pyelogram there was a marked filling defect in the middle calix, the lower calix was dilated and shaggy and the upper calix also showed a filling defect about the size of one's finger, with dilatation of the upper part as if there was an abscess present, the right ureterogram showed a distortion at about the level of the third lumbar vertebra

Under regional anesthesia right nephrectomy was done by Dr Lowsley, April 16 and the pathologic report of the resected kidney was "renal tuberculosis" After a short stay in the hospital the patient was referred to the urologic tuberculosis clinic for treatment of a sinus in the nephrectomy wound, which was discharging pus Mercury vapor quartz lamp treatment was instituted and he was treated twice each week, the length of the exposures being gradually increased and the distance of the lamp varied according to the reactions

After a course of the treatment, the sinus closed The patient regained his former weight and strength and has returned to his work, free from all symptoms

Case 3 is descriptive of the somewhat different postoperative treatment following nephrectomy for renal tuberculosis when there was a mild, probably beginning, tuberculous cystitis as a complication

Case 3—A man, aged 48, married, Italian, houseman, whose family and past personal histories are not relevant, began to have pain in the right kidney region about two years ago, which continued for two months and subsided There was no recurrence until May, 1926, when the pain returned and radiated to the region of the bladder The pain continued, and during July he developed frequency and incontinence of urine Cystoscopy showed evidence of inflammation in the trigon Elsewhere the bladder seemed normal except in the region of the right ureteral orifice, which was bulging into the bladder in a cervix-like manner and exuding a plug of tenacious pus The function of the right kidney was diminished, as shown by the function tests, the urea test was not definitely indicative, but in the phenolsulphonphthalein test the dye appeared from the right ureter in nine minutes and only 2 per cent was excreted in ten minutes, while from the left ureter it appeared in six minutes and 5 per cent was excreted in ten minutes Guinea pig inoculations from each ureter were negative for tuberculosis The roentgenologic examination showed both kidneys normal in size and position, and the only evidence of stone in the urinary tract was a circular shadow in the right kidney region about the size of one's thumb The right pyelogram extended to the circular shadow and gave the impression that it was a calcified tuberculous abscess in the right kidney, it showed dilated major and minor calices, with several filling defects and shagginess indicative of tuberculosis The right ureterogram showed a dilated ureter, which was distorted, and there were several points where there were filling defects suggestive of the presence of tuberculous granulations

Under regional anesthesia, right nephrectomy and right ureterectomy were done, August 3, by Dr Lowsley. The pathologist's report of the resected kidney and ureter was 'tuberculosis of the kidney and ureter and calculi in the pelvis of the ureter" After three weeks' convalescence he returned to his home, having been referred to the urologic tuberculosis clinic for further care and observation At the clinic he was advised regarding rest, fresh air and diet, and was given serial dilutions of old tuberculin hypodermically and mercury vapor quartz lamp treatments twice each week over the bladder region and nephrectomy wound Methylene blue, 1 grain (0 065 Gm) three times a day for five days was prescribed, together with weekly instillations of 1 per cent methylene blue in 3 per cent saline solution into the bladder

The patient became free from symptoms, the wound closed, and he returned to his work, apparently well He is still under observation and care, as it is probably advisable to carry this on for a year to prevent possible recurrence

Patient 4 has tuberculous cystitis and tuberculosis of the remaining kidney after nephrectomy for tuberculosis two years ago This is a not infrequent type in urologic work, and while the results of treatment are not all that could be hoped for, alleviation of the symptoms is very comforting to the patient and there is always the possibility that an arrest of the disease may be obtained

Case 4—A woman, aged 40, married, Norwegian, housewife, whose father is said to have tuberculosis, had a cough six years before the onset of her present trouble, the cough continued for several months, and pulmonary tuberculosis was diagnosed She states that she regained her health after about a six months' rest cure, part of which time was spent at Saranac Lake During November, 1924, she had six attacks of sharp pain in the left side radiating to the back, the attacks lasted for an hour or so and there was a slight increase in the frequency of urination One month later she had frequency of urination both day and night, but no dysuria In February, 1925, she developed a steady pain in the bladder and great frequency of urination both day and night, with dysuria One and a half weeks before her entrance to the hospital, Feb 27, 1925, she had another attack of left side pain followed by hematuria, which persisted, the pain in the left side became a steady ache The physical examination of the lung at that time indicated fibroid tuberculosis Cystoscopy showed a velvety appearance of the bladder mucosa and ulcerations in the region of the trigon Tests showed diminished function of the left kidney. The urine from the right ureter was clear and contained 3 Gm of urea per liter, while the urine from the left ureter appeared to have pus in it and contained 2 Gm of urea per liter Phenolsulphonphthalein appeared in the urine from the right ureter in four minutes, and 12 per cent was excreted in ten minutes, but on the left side it appeared in four and one-half minutes and 10 per cent was excreted in ten minutes Guinea-pig inoculations with urine from the left ureter were positive for tuberculosis, they were negative from the right ureter The roentgenologic study showed the kidneys apparently of normal size and in the normal positions The left pyelogram indicated an excavation in the region of the middle calix, the upper and lower calices seemed normal The left ureter was thickened and widened; there was no evidence of stone

Under regional anesthesia, left nephrectomy was performed by Dr Lowsley, March 10, and the pathologist reported that the resected kidney showed renal tuberculosis After a short period of convalescence she returned to her home A sinus from the nephrectomy wound drained for a time but healed under the mercury vapor quartz lamp treatment The frequency of urination and the dysuria were lessened but did not clear up completely

During the spring of 1926 she was referred to the urologic tuberculosis clinic by Dr Frederick F Lau Her symptoms were frequency of urination, burning on urination, occasional attacks of pain in the bladder, and hematuria at times. She was advised regarding rest, fresh air, diet and heliotherapy, and she has been given treatments with the mercury vapor quartz lamp; also old tuberculin hypodermically in graduated doses. Methylene blue was prescribed for relief of the burning on urination.

At present she seems to be in fairly good condition and is probably holding her own. Guinea-pig inculation with the bladder urine was recently positive for tuberculosis, and she has frequently a dull ache in the region of the remaining kidney, which is apparently involved. The general and special care that she is receiving apparently help to keep her comfortable.

Case 5 is indicative of the postoperative treatment following epididymectomy for tuberculosis:

Case 5.—A man, aged 27, married, Italian, whose family history is negative for tuberculosis, had the right kidney removed five years ago, he thought possibly because of tuberculosis. During September, 1926, a swelling developed in the region of the left testis, which suppurated and drained pus through a sinus in the scrotum. It continued to drain, and on November 3 left epididymectomy and resection of the sinus were done under regional anesthesia by Dr. J. C. Pennington. The pathologist reported that the parts resected were tuberculous. After a week's convalescence in the hospital he returned home, having been advised by Dr. Pennington to report to the urologic tuberculosis clinic for further care and treatment. At that time he had a postoperative sinus in the scrotum, which was draining freely, and an inactive lesion, apparently tuberculous, in the apex of the left lung; the prostate was enlarged and nodular, and it was thought that he probably had tuberculosis of the prostate and of the seminal vesicles.

He was advised regarding fresh air, rest and diet, and he was able to arrange his affairs so that he could live in the country and visit the clinic twice each week. He has been given old tuberculin hypodermically in serial dilutions, and tonics such as cod liver oil. The mercury vapor quartz lamp treatments were given over the region of the draining sinus, and it soon healed. His general condition has apparently improved a good deal, as he feels very well and he has gained 6 pounds (2.7 Kg.). It will require a prolonged period of care and observation to determine the eventual outcome, but his present condition makes the future appear hopeful.

The last patient has tuberculosis of the remaining testis after the other testis had previously been removed because of tuberculosis. This type of case is not infrequent.

Case 6.—A man, aged 28, married, Italian, laborer, injured the right testis in 1921 while cranking an automobile. He stated that he received dispensary treatment at another hospital for about a year, and the testis was then removed at that hospital. He was informed that the testis was tuberculous. He had no further symptoms until December, 1925, when he was kicked in the left testis, which became swollen, and the swelling persisted. He was referred to the urologic tuberculosis clinic during the spring of 1926, by Dr. Thomas J. Kirwin, whom he had consulted. At that time the testis was swollen to about the size of a hen's egg, and it occasionally ached. He has now been under treatment for some little time and he has been receiving mercury vapor quartz lamp treatments and old tuberculin hypodermically in addition to the usual hygienic, dietetic and rest regimen. The swelling of the testis has lessened and his general condition is good.

COMMENT

These patients are fairly representative of the various kinds under treatment, and the procedures and methods in use. While the results are not extraordinary, they are encouraging.

The plan on which the clinic was established—the combining of the special urologic treatment together with the general and special care of tuberculosis—seems to be working out satisfactorily.

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HYPOTENSION

REPORT OF SIX CASES IN ONE FAMILY

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Comparatively few have been the communications in various journals on the subject of low blood pressure. As opposed to hypertension, it pales into insignificance in the niche which it occupies in medical literature. At first thought, and from an academic standpoint, this may seem lamentable. But viewed from the clinician's point of vantage, should the condition—with the extreme paucity of stigmas ascribable to the hypotension per se—command a major claim on the profession's attention? That it assumes increased significance when associated with debilitating and even fatal diseases, such as arthritis, tuberculosis and Addison's disease, is, of course, obvious. Such associations are excluded from the discussion presented here, and I speak only of that hypotension unassociated with any determinable pathologic condition: that type which may be termed "essential" or "incidental" hypotension.

With many of those who have commented on the matter of low blood pressure in recent years, the opinion is rather prevalent that it needs must occur in persons of a definite and peculiar habitus and constitution and usually referred to as asthenic, hyposthenic, with narrow chests and slender bodies, underweight and displaying "a marked inefficiency for arduous and sustained physical effort." [1]

Fossier [2] speaks of a "characteristic symptomatology" of low blood pressure which is found in the asthenic and splanchnoptotic patient and only rarely, if ever, in the hypersthenic. It is my feeling that such definite and rather sweeping conclusions are hardly justifiable and I am inclined to adhere to the views expressed by Lambert [3] and Friedlander,[4] who maintain that low blood pressure is wholly consistent with good health, and that many healthy persons have low blood pressure without showing symptoms but are indeed vigorous people. Muhlberg [5] is quoted as saying that "there appears to be no doubt of the fact that a low blood pressure past the age of 50, unassociated with any organic lesion to account for this low blood pressure, is the best criterion that we possess that the individual will live beyond his normal expectancy."

Hypotension is not necessarily confined to the asthenic person or to the patients of little efficiency. It can and does occur not infrequently in persons of normal build, of hypersthenic habitus, of quite normal efficiency, of normal weight or even in the obese; and per se, essential or incidental hypotension is attended with little or no clinical significance. Therefore its neglect, more apparent than real, at the hands of the medical commentators is, in a measure, justified. In support of these tenets I herewith present six cases of essential or incidental hypotension in one family, five of which are in one generation—three brothers and two sisters, and the sixth a son and nephew.

These observations, given in the accompanying table, were made without any preparation on the part of the patients, and represent the highest reading of the sphygmomanometer in several examinations at intervals over a period of two years. In each case they were made at or about midday, with the patient fully clothed and sitting erect.

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[1] Barach, J. H.: Arterial Hypotension, Arch. Int. Med. **35**: 151-161 (Feb.) 1925.

[2] Fossier, A. E.: Cause of Essential Hypotension, Am. J. M. Sc. **171**: 496-501 (April) 1926.

[3] Lambert, A. M., in discussion of Roberts, S. R.: A Study of Hypotension, J. A. M. A. **79**: 262-268 (July 22) 1922.

[4] Friedlander, Alfred: Clinical Types of Hypotension, J. A. M. A. **83**: 167-171 (July 19) 1924.

[5] Muhlberg, William, quoted by Friedlander.

With the possible exception of the physician in the group, the family is one characterized by extreme activity, efficiency in hard work, and splendid physique, and is of a stock noteworthy for its longevity. There are absolutely no evidences of failing myocardia to which such pressures might be attributed. Particular attention is directed to that of patient 1, weighing 250 pounds, with a systolic pressure of 102. This not unusual coincidence of hypotension and obesity was noted by me in a former publication [6] wherein, out of a group of 200 definitely obese patients with and without high blood pressure, twenty-two, with weights varying from 170 to 265 pounds, had systolic pressures of 110 or under. Thirteen had pressures under 105, and eight under 100. Here, too, of course, the factor of asthenic habitus, with drooping shoulders, etc., was far removed.

Data in Six Cases of Hypotension

					Height		Blood Pressure	
		Occupation	Age	Weight	Ft.	In.	Systolic	Diastolic
1.	Mr. J. E. P.....	Merchant	65	250	5	10	102	70
2.	Mr. R. W. P....	Lawyer	60	163	6	1	96	70
3.	Miss E. M. P...	Housekeeper	59	125	5	7	108	70
4.	Mrs. C. L. G...	Housewife	57	125	5	8	94	72
5.	Mr. E. O. P....	Farmer	50	250	6		98	63
6.	Dr. D. G........	Physician	33	160	5	8	95	68

Not infrequently do we receive patients who have at some time been "put to bed by the doctor," or who have received "serum treatments" for low blood pressure. Nor is it unusual to hear from the laity the belief that "low blood pressure is worse than high blood pressure." I have heard this statement no less than three times within the last two months. Such procedures are, at best, questionable, and for such lay misunderstandings we are responsible. The subject of hypotension should be put forth in its true light, to correct any such false impressions that may have gained foothold in the medical mind and to allay needless apprehension among the laity. Let the subject assume its place along with incidental achlorhydria and visceroptosis. And just as we have well quit ourselves of hospitalizing and confining to bed, with head down and feet up, the much maligned patient with "gastroptosis," so let us assume a more rational point of view toward incidental hypotension, a condition wholly innocuous, so far as we know.

The occurrence of these six cases in one family naturally brings up the question of the possible heredity of low blood pressure. "No one who has had any contact with hypertensive cases can escape the impression that heredity plays an important rôle in the production of high blood pressure. Such an impression is obtained from observing certain families in which an extraordinary number of the individuals comprising them have died of vascular diseases." [7] A case in point is that of the husband of patient 4 and father of patient 6 in the series just given: he is a minister, aged 64, with a hypertension of 200/120, with a sister aged 63, who has a pressure of 200/110, another sister of whom died with a "stroke," whose mother died from the same cause and whose father died of "Bright's disease." In these families joined by marriage may we not have excellent evidence of the hereditary nature of both hypotensive and hypertensive conditions? On the past histories of families we must, as has been said, base our supposition of the then-existing high blood pressure, because of the relative youth of the sphygmomanometer, at least in its clinical use. In hypotension we have not even this aid that the history gives us and therefore observations on this form of vascular condition must be left for the future. I submit it, not as a fact, but rather as an hypothesis that remains to be proved—and in which proof I am making a single contribution—that incidental hypotension may be hereditary.

CONCLUSIONS

1. Six patients with low blood pressure in one family are in excellent health and are active and vigorous; most of them are robust and hypersthenic and one is obese.
2. Incidental hypotension is of little or no clinicopathologic significance, except as a possible indicator of long life.
3. Incidental hypotension has been misunderstood, in the past, and misinterpreted; and a more rational attitude toward it, both on the part of the profession and, through it, by the laity, should be adopted.
4. Hypotension, like hypertension, may be hereditary.

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THE DETECTION AND INCIDENCE OF HUMAN INTESTINAL PROTOZOA BY THE SIGMOIDOSCOPE *

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Although Manson-Bahr [1] has advocated the use of the sigmoidoscope in the detection of low sigmoid and upper rectal amebic ulcers, it is not apparent from the available literature that sigmoidoscopy has been used as a routine diagnostic measure to determine the presence of the intestinal protozoa in general. It is our purpose in this report to compare the incidence of protozoan parasites of the human intestine from specimens of feces obtained by the use of the sigmoidoscope with the usual defecated specimens submitted for examination. Similar procedure is being employed in the estimation and study of the bacterial flora of the large bowel.

This work was undertaken at the suggestion of Dr. Thomas R. Brown, associate professor of clinical medicine and chief of the gastro-intestinal clinic.

MATERIALS AND METHODS

The types of persons examined were extremely varied. A group of nationalities was represented which appeared at the clinic for relief of various and sundry complaints referable to the gastro-intestinal tract. None of these cases were especially selected for this study. Only eight of the 253 cases presented organic disturbances referable to the large intestine; the remainder proved to be purely functional states. A third of those examined did not present bowel symptomatology.

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[6] Garvin, J. D.: Obesity and Hypertension, Collected Papers of the Mayo Clinic and the Mayo Foundation, Philadelphia, W. B. Saunders Company, 1926, pp. 601-605.

[7] O'Hare, J. P.; Walker, W. G., and Vickers, M. C.: Heredity and Hypertension, J. A. M. A. 83: 27-28 (July) 1924.

* Read before the Johns Hopkins Medical Society, March 7, 1927.

* From the Department of Medicine, Gastro-Intestinal Clinic, Johns Hopkins Hospital and Medical School, and the Department of Medical Zoology, School of Hygiene and Public Health, Johns Hopkins University.

[1] Manson-Bahr, P. H.: Manson's Tropical Diseases, ed. 8, New York, William Wood & Co., 1925.

The physical condition of each patient on whom sigmoidoscopy was practiced for this research was such as not to contraindicate the procedure.

Each patient was placed in Haynes' position; i. e., the lower extremities remained on the table, while the trunk, flexed at the hips, was virtually at right angles to the lower extremities; the head rested on the forearms, which were flexed at the elbows and were supported by a footstool of convenient height.

It has been shown that this position is preferable to the usual, well known, knee-chest posture. In the Haynes position, the viscera are, by force of gravity, moved out of the pelvis, up toward and against the diaphragm. This reduces intrapelvic pressure and facilitates instrumentation. Although it may not be indicated by the appearance of the patient, he is actually more comfortable in this position than in the knee-chest posture.

The sigmoidoscope employed was that of Buie [2] of the Mayo Clinic. It is 25 cm. (10 inches) in length and is 16 mm. (five-eighths inch) in diameter.

In only three instances were attempts to pass the instrument unsuccessful. These cases are not included in the series. Each of them presented degrees of spasm that could not be overcome at the time of instrumentation.

The same instrument and procedure were employed in all patients whose ages ranged from 14 to 76 years. Confirming the experience of Buie, the procedure as a routine virtually did not present any difficulties. It must be urged that the sigmoidoscope should be used carefully, that force should not be employed in its passage, and that little air inflation or none at all should be used during the course of instrumentation, as perforations of pneumatic and instrumentative origins have been known to occur at the rectosigmoid junction and within the sigmoid proper, resulting in peritonitis.

Many patients were examined shortly after gastrointestinal fluoroscopy and roentgenography, and therefore presented barium sulphate, an opaque substance administered previous to these examinations, in the intestine. Clinical observations on this group make it appear that the presence of barium sulphate in the lower bowel renders sigmoidoscopy more difficult in that the contents are more tenacious and difficult to remove. It partially inhibits peristalsis and the intestine appears to be more spastic than when barium is not present.

In order to secure feces from the sigmoid, the patients were instructed to present themselves unprepared; i. e., they were not ordered to take the usual purge the night before, or to administer a soap-suds enema the morning of the examination. As a result, a large number of the patients appeared with feces in the rectum. In order to pass through the rectum into the sigmoid to secure material directly from the sigmoid by means of the sigmoidoscope, we aspirated the rectal feces, diluted with water when necessary, by means of a water suction pump. It is to be pointed out that in practically every case the instrument was inserted its full length (25 cm.), so that the specimens thus obtained were sigmoid contents, not rectal contents.

Strict asepsis in this procedure is not essential. However, the sigmoidoscope and aspirator must be sterilized after each insertion so as to avoid rectal contamination from patient to patient.

The examinations for pararsites were made as follows: Sigmoid contents were extracted by means of a tight cotton swab on a 12 inch applicator stick while the instrument was in position. One thin smear was immediately made in saline solution on a slide warmed to 99 F., and another was made in Dobell's iodine solution. The smears were examined at once under coverslips at a magnification of about 250 diameters. When organisms were located, a magnification of about 1,100 diameters was used to assist in identification. The corresponding defecated specimens were similarly diagnosed on the same day that they were obtained, so that they were examined in the majority of cases within six hours, and in all cases within twelve hours, after dejection. Only one examination was made of each specimen, the smears being searched for from five to ten minutes each. In order to reduce the personal error while comparing the parasite content from sigmoidoscopic and defecated specimens, one observer diagnosed the sigmoidoscopic specimens and another microscopist, unacquainted with the observations of the first, examined the defecated specimens.

After the smears were made, duplicate tubes of serum-saline-citrate medium [3] prepared according to the method described by Andrews [4] were inoculated. As a rule, amounts varying in size from a green pea to about half that quantity were inoculated. In a few cases in which the patient had defecated just prior to the examination or had been purged the night before, it was difficult to obtain any feces. In these instances, the medium was poured into the sigmoidoscope, and the walls of the sigmoid colon at the proximal end of the instrument were gently washed with a large capillary pipet. With the same pipet, the medium was finally aspirated and delivered into culture tubes. Similar cultures were made from the defecated specimens at the time of the microscopic examination. The culture tubes were incubated as soon as possible at 37.5 C. for forty-eight hours. At the end of that time, a large drop of the medium taken from near the bottom of the tube was examined for flagellates. Tanabe,[5] using the serum-saline-citrate medium, has shown that *Trichomonas* appears in maximum numbers forty-eight hours after inoculation. The medium appears to permit the growth of *Chilomastix mesnili* as well as *Trichomonas.*

OBSERVATIONS

In all, 253 persons were examined and bowel contents obtained by sigmoidoscope. Unfortunately it is possible to present, of this group, only 210 cases in which concomitant stool examinations could be made.

In view of the number of cases examined, this report is presented as approximating the incidence of human intestinal protozoa of this locality. This series, as judged by the chi-square test, seems sufficient to establish statistically that the two following points are not based on chance distribution; namely, that many more organisms can be found in sigmoidoscopic than in defecated specimens, and that more organisms can be found in a specimen from a clean bowel than from one that contains barium sulphate.

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[2] Buie, L. A.: Importance of Proctoscopy, M. Clin. N. Amer. 7: 113-121 (July) 1923.

[3] Cleveland, L. R.: Toxicity of Oxygen for Protozoa in Vivo and in Vitro; Animals Defaunated Without Injury, Biol. Bull. 48, 1925, footnote, p. 464.

[4] Andrews, J. M.: Cultivation of Trichomonas; Thermal Death-Point; Anaerobic Conditions; Attempts at Sterilization, J. Parasitol. 12: 148-157 (March) 1926.

[5] Tanabe, M.: The Cultivation of Trichomonas from Man, Rat and Owl, J. Parasitol. 12: 101-104 (Dec.) 1925.

The distribution of nationalities was representative of the mixed population of any large city. There were about 40 per cent white Americans and about 25 per cent colored Americans. The remainder was largely composed of persons from Russia and the countries of central Europe.

The proportions of males and females were 53 and 47 per cent, respectively.

Forty-six per cent of the patients were suffering from constipation. About 30 per cent did not have symptoms referable to the gastro-intestinal tract. Twelve per cent complained of pain in the lower abdomen. Diarrhea, rectal bleeding, tapeworm, mucus and indefinite symptoms were about equally distributed as the predominating symptoms for the remaining patients. Organisms occurred throughout the various groups with an irregular frequency, indications that any one organism might be responsible for any one symptom being absent.

The ages varied from 14 to 76 years, nearly 90 per cent falling within the limits of 21 and 60. As far as is indicated by the records, the dispersion of the cases was fairly uniform. Age susceptibility was not indicated.

Table 1 shows the incidences of protozoan organisms inhabiting the alimentary tract of apparently normal persons residing in the temperate zone, grouped according to the presence or absence of barium sulphate. In the progress of this work, it appeared that the presence of such an inert substance as barium sulphate considerably reduced the incidence of protozoan organisms. Accordingly, in tabulating the results, patients were divided into two groups, one of which was composed of those who had ingested barium sulphate for the purpose of gastro-intestinal roentgenologic examination within six days of sigmoidoscopy; the other group had partaken of barium sulphate at least six days prior to the sigmoidoscopic examination, or not at all. The first subtable shows the incidence of those persons examined sigmoidoscopically who presented fecal specimens at the time of the examination and who had not partaken of barium sulphate within six days of the sigmoidoscopic examination. The second subtable presents the observations in those similarly examined but who had ingested barium sulphate within six days of sigmoidoscopy. The third tabulation is a combination of the first two and is probably more comparable with incidences revealed by ordinary routine fecal examinations.

Table 1.—*Incidence of Protozoa in Defecated and Sigmoidoscopic Specimens Grouped According to Barium Content of Bowel*

	Barium Not Given Within Six Days		Barium Given Within Six Days		Combined Barium and Non-barium Groups	
	Defecated	Sigmoid	Defecated	Sigmoid	Defecated	Sigmoid
Number of cases	95	95	115	115	210	210
	%	%	%	%	%	%
Endameba coli	4 2	21.0	3.5	13.9	3.5	17.0
Iodameba williamsi	2.1	5.3	0.0	0.0	1.0	2.4
Endolimax nana	1.1	30.5	2.6	8.7	1.9	16.2
Giardia lamblia	2.1	3.2	0.87	5.2	1.4	3 8
Chilomastix mesnili	3.2	7.4	0.87	1.7	1.9	3.3
Trichomonas hominis	4.2	5.3	1.7	1.7	2.9	2.4
All organisms	13.7	46.3	8.7	20.9	10 5	31.9

It is not to be inferred from this table that barium sulphate is actually parasiticidal. It is plain that such a comparatively large quantity of any inert, finely divided substance introduced into the alimentary tract would so dilute the contents that the chances of finding parasites per unit quantity of stool would be considerably reduced. Furthermore, it is quite possible that other factors, such as the mechanically inhibiting influence of barium sulphate on the motility and vital processes of such active organisms as the intestinal flagellates, might contribute to the difficulties of making the diagnosis.

Table 2.—*Incidence of Trichomonas and Chilomastix in Sigmoid and Defecated Specimens by Smear and by Culture*

	Sigmoid			Stool		
	Smear + Culture +	Smear + Culture —	Smear — Culture +	Smear + Culture +	Smear + Culture —	Smear — Culture +
Trichomonas						
Case 1	..	..	+	..	..	..
Case 2	..	..	..	..	..	+
Case 3	+	..	..	+	..	..
Case 4	+	..	..	..	..	+
Case 5	..	..	..	..	..	+
Case 6	..	+	..	..	..	..
Case 7	..	+	..	..	..	..
Case 8	..	..	..	+	..	..
Case 9	..	..	+	..	..	+
Total	2	2	2	2	0	4
Chilomastix						
Case 1	..	..	+	..	..	..
Case 2	..	..	+	..	..	+
Case 3	..	+*	..	..	..	..
Case 4	..	..	..	..	..	..
Case 5	+	..	+	..	..	+
Case 6	..	+*	..	..	..	..
Case 7	..	+*	..	..	+*	..
Case 8	..	+*	..	..	..	..
Case 9	..	+*	..	..	..	..
Total	1	5	3	1	1	2

* *Only cysts found.*

The results from making cultures for flagellates were as indicated in table 2. Nine cases of *Trichomonas* were found. With the sigmoid specimens, two were positive by smear and by culture, two were positive by smear and negative by culture, and two were negative by smear and positive by culture. From the defecated specimens, two were positive by smear and by culture, and four were positive by culture and negative by smear. Nine cases of *Chilomastix* were found, of which five were diagnosed by the presence of cysts. In these cases, cultures were not positive, perhaps because trophozoites were not present. With the sigmoid specimens, one case was positive by smear and by culture, five cases were positive by smear and negative by culture, and three cases were negative by smear and positive by culture. With the defecated specimens, one case was positive by smear and by culture, one case was positive by smear and negative by culture, and two cases were positive by culture and negative by smear. These data are presented in a much clearer form, case by case, in table 2. These results indicate that the cultural method should be used to supplement the diagnosis of flagellates by the smear method. It is not at present sufficiently refined to substitute for the smear method of diagnosis. It also appears that the medium is more reliable for the detection of *Trichomonas* than *Chilomastix*. This conclusion modestly confirms the recently published work of Hill.[6]

The absence of *Endameba histolytica* in our results is notable, and we are unable to account for it. In none of the examinations was any organism found which suggested that it might be *Endameba histolytica*. Helminth ova were not observed.

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[6] Hill, C. M.: The Successful Application of the Culture Method to the Diagnosis of Intestinal Flagellates in the Field, Am. J. Hyg. 6: 646-658 (Sept.) 1926.

It is to be noted that *Trichomonas hominis* occurred more frequently in the defecated specimens than in those obtained sigmoidoscopically. This is accounted for by the fact that, in some of the cases, little stool or none at all was found in the sigmoid, and that, furthermore, as pointed out by Hegner and Becker[7] *Trichomonas hominis* remains viable in defecated stools three or four times as long as do other trophozoites.

In connection with these observations, it is interesting to note the incidence reported by Smithies[8] of protozoiasis in 3,780 residents of the temperate zone. Computed from this figure, the incidence is as follows: *Trichomonas hominis*, 2.0 per cent; *Cercomonas intestinalis hominis (?)*, 1.8 per cent; *Chilomastix mesnili*, 0.6 per cent; *Cercomonas* and *Chilomastix* combined, 2.5 per cent; Endameba (total), 1.6 per cent; *E. histolytica*, 1.0 per cent; *E. coli*, 0.5 per cent; unclassified endamebas, 0.08 per cent; *Balantidium coli*, 1.8 per cent; *Giardia lamblia*, 0.4 per cent. The proctoscope was used in many of these examinations, but, apparently, only with the hope of revealing gross anomalous appearances of the lower colon due to protozoan infection. It is thought that, had the instrument been used to produce the sigmoid contents, the incidences of the various organisms listed might have been somewhat higher.

It should be stated that the principal virtue of sigmoidoscopy in the diagnosis of protozoan infections lies in the fact that stool may be obtained from the sigmoid colon when it is positively fresh and may be examined immediately. While it is not possible to get all unprepared patients to defecate at will in the laboratory, it is very seldom that it is difficult to obtain abundant material for examination from the lower sigmoid of similarly unprepared patients. These specimens, examined at once, eliminate parasite mortality both while passing through the rectum and during the usual postdefecation interval before examination.

SUMMARY

1. Lower sigmoid contents have been obtained sigmoidoscopically from 253 patients, 210 of whom supplied defecated specimens as well. These specimens were examined microscopically and culturally (for flagellates), and yielded, in the group that had not partaken of barium sulphate for at least six days prior to the sigmoidoscopic examination, an incidence of all organisms of 13.7 per cent in defecated specimens, as compared with 46.3 per cent from sigmoid contents. In the group in which barium sulphate had been ingested within six days of examination, a total incidence of 8.7 per cent from defecated specimens, as compared with 20.9 per cent from sigmoidoscopic specimens, was determined. The combined barium and nonbarium groups revealed a total incidence of 10.5 per cent from defecated specimens, as compared with 31.9 per cent from the sigmoid.
2. Comparing the occurrence of protozoa found in feces obtained sigmoidoscopically and by defecation, it was found that the incidence by the former method was regularly (with the exception of *Trichomonas*) from two and one-half to three and one-half times as high as by the latter method.
3. There does not appear to be uniform association of particular organisms with particular symptoms.
4. The incidence of protozoa was approximately twice as high in those cases in which barium sulphate had not been administered, as compared with those cases in which it had been administered within six days of the examination.
5. The serum-saline-citrate method of flagellate culture was found to be a useful supplement to smear examination for *Trichomonas* and *Chilomastix*.
6. On the basis of these observations, we urge the use of the sigmoidoscope in obtaining fecal specimens for parasitologic examination. The use of this instrument for this purpose is fully justifiable in view of the proved inadequacy of single parasitologic examinations from defecated feces.

THE PRESSURE VACCINATION TECHNIC

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AND
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As the result of a smallpox scare at Lehigh University in February, 1924, a rule was adopted requiring every student who matriculated at the university to be vaccinated by the Students' Health Service unless he had been successfully vaccinated within the past three years. The term "successful" has been interpreted in this rule as meaning a true vaccinia, and a certificate of vaccination is not accepted unless supported by a definite scar of an obviously recent vaccinia. It was foreseen that it would be necessary to vaccinate a very large number of students (the entire enrolment of 1,400) the first year the rule was in effect and practically the entire freshman class of about 600 each succeeding year. It was also foreseen that this work would have to be carefully planned in order to develop a method of vaccination that would not interfere too much with class hours and thus bring the health service into conflict with the educational departments of the university.

Fortunately it was possible to compare various methods before the rush of vaccinating the entire student body was on us. In February, 1924, following the provisional diagnosis of a case of smallpox in the university, all contacts were vaccinated. The following technic was used: A single scratch was made, the virus was applied to the scratch, rubbed in, and then allowed to dry before the shirt sleeve was rolled down. This method was found to be satisfactory when only a few students were to be vaccinated, but the time required for the vaccine to dry, frequently as long as thirty minutes, made it impracticable when large numbers were to be vaccinated in a short time and in a limited space.

In the fall of 1924, vaccination was offered but not required and the technic which we called "jennerian" was developed. This technic is practically that which was recommended by the U. S. Public Health Service and the Medical Department of the U. S. Army. It has been thus described:[1]

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[7] Hegner, R. W., and Becker, E. R.: The Diagnosis of Intestinal Flagellates by Culture Methods, J. Parasitol. **9**: 15-23 (Sept.) 1922.

[8] Smithies, Frank: Protozoiasis Occurring in Temperate Zone Residents: A Study of Two Hundred and Sixty-Five Instances with a Discussion of the Associated Digestive Malfunction, Am. J. Trop. Med. **6**: 1-45 (Jan.) 1926.

> The skin of the upper arm was cleansed by rubbing with a swab of cotton saturated with alcohol. This was allowed to dry. With his left hand the operator grasped, from below, the arm of the patient in the region of the insertion of the deltoid muscle. The skin was stretched and three short, parallel scratches were made about three quarters of an inch apart. The scratches penetrated the epidermis but pains were taken not to draw blood. Care was taken not to include any scar tissue from previous vaccinations in the scratched area. The virus was expelled from the tube on the two outside scratches and rubbed in thoroughly. The middle scratch was not inoculated but served as a control. It received the same degree of trauma as the two inoculated scratches.

In order to eliminate the time required for the vaccine to dry, a transparent perforated celluloid shield of large size was placed over the site of vaccination and the student allowed to roll down his sleeve at once. This procedure was not considered desirable but was used as a necessary makeshift to overcome an otherwise impossible situation. The shield was removed at the first observation of the reaction twenty-four hours later and no bad results were noted. More than 600 students were vaccinated by this method in September, 1924.

In September, 1925, the university vaccination requirement became effective and it was necessary to vaccinate more than 1,000 students. The jennerian technic had seemed satisfactory and this was followed in the majority of cases. An effort was made, however, to eliminate the objectionable features of the shield. For this purpose a special dressing was made up consisting of perforated adhesive plaster and a thin pad of gauze. The dressings were of such size that they covered the entire site of vaccination. The adhesive plaster was applied to the arm above the scratches, the gauze was then "buckled" so it did not touch the arm at the site of vaccination, and the adhesive plaster was applied immediately below the scratches. In this way the actual site of vaccination was amply protected, access of air was permitted, and the vaccine dried without an accumulation of dust under the dressing. This was of course removed after twenty-four hours. It seemed that this dressing eliminated the objectionable features of the shield and was as satisfactory as could be hoped for where protection of some kind was necessary. Nearly 900 students were vaccinated by this method.

The results obtained during the scholastic year 1924-1925 were discussed with the officials of the U. S. Public Health Service. Here we encountered the natural criticism of the use of any dressing following vaccination. It was mainly to overcome this objection that we tried out, in a limited number of cases, the "pressure" method suggested by Dr. J. P. Leake,[2] surgeon, U. S. Public Health Service. Dr. Leake's directions are as follows:

> A simple method is a shallow, tangential pricking of the cleansed but not irritated skin with a needle, through a drop of smallpox vaccine, covering an area not greater than one-eighth inch (3 mm.) in diameter. This gives little chance of accidental infection and the eruption is typical. The needle, which should be new, sharp and sterile, is not thrust into the skin but is held quite parallel or tangential to it, with the forefinger and middle finger of the right hand above the needle and the thumb below, the needle pointing to the operator's left. The needle should be crosswise of the arm, so that the thumb of the operator is not impeded by hitting the skin. The side of the needle point is then pressed into the drop about thirty times within five seconds, the needle being lifted clear of the skin each time. This rapid to and fro motion of lifting the needle and pressing it against the skin should be quite perpendicular to the skin and needle, and not in the direction of the needle. In this way the elasticity of the skin will pull a fraction of an inch of the epidermis over the point of the needle at each pressure so that the vaccine is carried into the deeper layer of epithelial cells, where multiplication takes place most easily. If the skin has not been unduly rubbed in cleansing, and if the motion is entirely perpendicular to the needle, no signs of bleeding will occur and all evidence of the punctures will fade out in less than six hours. Immediately after the punctures have been made the remaining virus is wiped off the skin with sterile gauze and the sleeve is pulled down, the whole operation of puncturing and wiping taking less than ten seconds. With strong vaccine a single pressure not infrequently gives a "take." Only six pricks or punctures were formerly advocated. Comparative tests showed this to be inferior to the scratch method in the percentage of successful "takes." By the use of thirty pricks, this difficulty has been overcome and the percentage of "takes" is as high as with any other safe method.
>
> The disadvantages of this method, which it shares with some other methods, are, first, that without demonstration and practice the technic of applying the proper pressure may not easily be acquired, and, second, that without due care an area larger than one-eighth inch (3 mm.) in diameter may be covered by the insertion. In regard to the first point, the difficulty is usually that the needle is not pressed in the right direction or that the pressure is not firm enough. Provided the needle is held quite tangential to the curve of the arm, and the direction of motion is quite perpendicular to the needle, it is difficult to make the rapid pressure too firmly. In regard to the second point, motion from the wrist with the arm held rigid is usually more accurate than whole arm motion.
>
> The advantages of the method are its mildness and painlessness, the fact that it is more rapid than any other effective and safe method, the fact that no control site is necessary since the evidence of trauma due to the operation has disappeared before the first observation for an early reaction is made, and the fact that the virus is wiped off immediately, so that the uselessness of a dressing is obvious to the person vaccinated.

The foregoing method is known by us as the pressure technic, and the fact that they were vaccinated by this method was noted on the men's vaccination record cards. As we had gotten very satisfactory results by our "jennerian" technic we were loathe to depart from it and therefore used the new technic in the vaccination of only every tenth man.

It became apparent immediately that the "pressure" technic had the practical advantage of saving considerable time. In the "jennerian" method the care necessary to avoid drawing blood, to make the degree of trauma the same in all three incisions, to rub in the virus, and to apply the dressing, took nearly forty-five seconds for each man. By the "pressure" technic a man was vaccinated and on his way in less than one fourth of this time. Moreover, the obvious ease of the method from the point of view of both the operator and the person being vaccinated was apparent to those vaccinated, and it was not unusual to have men standing in line ask to be vaccinated by what they called the "new method."

It was not until we tabulated the results of nearly a thousand vaccinations that we could draw a comparison of the efficacy of the "jennerian" and "pressure" methods. Table 1 shows the comparative results obtained by these two different methods of vaccination.

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[1] Thomas, Stanley: Smallpox Vaccination as Carried Out at Lehigh University, Pub. Health Rep. **41**: 37 (Jan. 8) 1926.

[2] Leake, J. P.: Pub. Health Rep. **42**: 221-238 (Jan. 28) 1927.

In view of the fact that the new method is much simpler, milder, and more rapid than the old method, the comparison is remarkable. In fact, we can say that there is no difference in the results of these two methods of vaccination.

Table 1.—*Comparative Results*

	"Jennerian"		"Pressure"		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Immune reactions......	576	65.5	71	66.3	647	65 8
Vaccinoid reactions.....	200	22.9	24	22.5	224	22.7
Vaccinias	102	11.6	12	11.2	114	11.5
Total	878	100.0	107	100.0	985	100.0

In February, 1926, it was necessary to vaccinate a number of men who entered the university at the beginning of the second semester. At this time the pressure technic was used exclusively. The results are given in table 2.

Table 2.—*Results with Pressure Technic*

	Number	Per Cent
Immune reactions..............................	47	75 7
Vaccinoid reactions............................	9	14 5
Vaccinias	6	9 8

While the percentage of immune reactions was slightly greater and that of the vaccinias slightly less than in table 1, the small number of vaccinations (sixty-two) must be taken into account. If the next man vaccinated had been one not previously vaccinated, we are sure that the percentage of typical takes would have been over 11 per cent.

CONCLUSIONS

1. Of the methods employed by us for the vaccination against smallpox, the pressure technic has been shown to be as efficacious as any other in inducing vaccinias in susceptible persons.

2. The pressure technic has the advantage of saving time in vaccinating a large number of persons in a short time.

3. The pressure technic overcomes the objection to the use of a dressing following vaccination and makes the dressing or shield obviously unnecessary.

4. The pressure method is more desirable from the point of view of the vaccinated person.

From these results it is our intention to adopt the pressure technic as the sole method of compulsory vaccination at Lehigh University. At the opening of college next September it will be necessary to vaccinate about 500 students. The time allowed in the schedule for this work is two hours. With sufficient clerks to make the records, two operators will easily accomplish this, using the pressure technic.

Wise Specialism an Advantage.—Wise specialism is of the greatest advantage for the progress of medicine, but its followers should know something about everything medical as well as everything about their own branch. Without taking a reactionary view, there is a danger that specialism may be exaggerated and that parts of medicine which should be within the reach of every competent medical man may be prematurely elevated into a specialty; in ancient Egypt there was a phase (500 B. C.) when each disease had its practitioner who confined his activities to that one condition. To be a clinical specialist has mercenary advantages, for practice comes earlier and the lucrative rewards may be considerable. —Rolleston, Humphry: *Lancet* 2:739 (Oct. 9) 1926.

A HARMLESS MUCOUS MEMBRANE IRRIGANT *

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During the last several years the nose and throat surgeons have given up increasingly the use of irrigating solutions in the treatment of acute or chronically inflamed accessory sinuses or after these have been operated on. The feeling seems to be general that their employment is harmful, and it is frequently maintained that they spread infection. The saturated boric acid solution or the so-called physiologic salt solutions commonly used in hospitals (solutions of sodium chloride, varying in concentration from 0.7 per cent to 0.85 per cent) at times unquestionably produce such bad effects, and yet, it must appeal to every one's surgical sense that the mechanical cleansing of mucous membranes, coated with mucus or pus, can by itself be only of benefit.

In reviewing the matter some two years ago, we were of the opinion that the evil effects produced by such irrigants were dependent on their faulty composition. As commonly employed, they favor the development of an edema in the irrigated mucous membranes—a situation often aided by the overuse of epinephrine or of cocaine and its derivatives, substances which, after a brief vasoconstrictor effect, produce a long continued period of vasodilatation and, by their directly poisonous action on living cells, interfere with their normal oxidation chemistry and so aid in the development of edema. Edema in a tissue, according to W. B. Wherry's[1] observation, heightens its susceptibility to infection.

It is true of all wounds that the use of pure water on them is most favorable to the development of an edema in the irrigated parts, especially if the imbibition tendency of the tissues is increased by trauma, chemical irritants or infection. The use of salt in the water, notably sodium chloride, tends to counteract the swelling effects of the water and explains the long-known superiority of any so-called physiologic salt solution over plain water in all surgical dressing. It is too often forgotten, however, that *the uninjured cells of the human being* require a minimum of 0.85 per cent sodium chloride in the water to prevent their swelling and that, *when the cells are injured and thus have an increased tendency to swell, a sodium chloride concentration above this value must be used.*

Another fact of importance in the preparation of a proper surgical irrigation fluid is that different salts, even when employed at the same concentration, are unequally effective in reducing such swelling. The salts of magnesium, calcium and strontium, for example, are far more powerful than the corresponding salts of sodium, while still heavier metals like iron, zinc and mercury are most powerful of all. For this reason the use of a calcium salt with the sodium chloride in any irrigation fluid yields better results than the use of the sodium chloride pure. A mixture of various salts has therefore always been known to be less harmful to living tissue than any salt used singly, as exemplified in the long and favorably known solutions of Ringer or Locke. But the Ringer solutions commonly used in medical and surgical practice are physiologic mixtures derived from study of amphibian tissues (such as turtles and frogs) and are therefore of too low concentration when used on man.

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* From the Eichberg Physiological Laboratory, University of Cincinnati College of Medicine.

[1] Wherry, W. B.: Am. J. Ophth. 8:859 (Nov.) 1925.

To obtain an irrigating fluid suitable for human use and one that took into due consideration the facts briefly outlined here, we prepared a mixture consisting of sodium chloride, 10.5; calcium chloride, 0.84; potassium chloride, 0.42; water, sufficient to make 1,000.

This solution contains the three salts which Ringer originally found so favorable for the maintenance of a physiologic activity in surviving tissues and is, in this respect, therefore, a so-called physiologically balanced mixture. The solution is also "hypertonic" in that the concentration of the sodium chloride has been raised to the point at which it will prevent not only the swelling of uninjured human cells but also somewhat above this. The concentration of the calcium chloride is several times that of the original Ringer mixture. This high value is taken in order to maintain the dehydration effects of the various salts as long as possible; for while monovalent salts, through their more rapid diffusion, affect the inflamed tissues first, the dehydrating effects of calcium last longer, once this salt has diffused into the tissues.

We find it convenient to have this solution ready in concentrated form. Powder mixtures of the several salts will not keep because calcium chloride is deliquescent. The following is a practically saturated solution of the foregoing salts in the correct proportions: sodium chloride, 263.7 Gm.; dried calcium chloride, 21 Gm.; potassium chloride, 10.6 Gm.; distilled water, sufficient to make 1,000 cc. When desired for use, 20 cc. of this mixture is diluted to 500 cc. with distilled or freshly boiled water and thoroughly mixed. We frequently use 22 cc. There is no harm in employing the solution in this or still higher concentration, but to do so in any concentration less than 20 cc. in the 500 of water is to employ a solution possessed of all the defects of plain water or an inadequately concentrated salt mixture.

It is best, of course, to irrigate with the mixture at body temperature or a few degrees higher. Since boiling does not affect it, the stock or finished solution may be readily sterilized. It is well to remember also that the diffusion of salts into tissues takes time and that prolonged contact with the tissues is favorable to this end. As much time as possible should therefore be allowed between the separate fractions of an irrigation, and the patient should be asked not to blow his nose immediately after the final one. For injection, any douche arrangement may be used; but the time element should be remembered as well as the need of using an adequate volume of the irrigating fluid (from 500 to 1,000 cc.). We have ourselves found the Holmes postnasal douche with the split tip, employed through the anterior nares, most favorable to this end. It need not be emphasized that any injection apparatus must be used with bacteriologic care, and that caution must be exercised against the aspiration of infected material into the apparatus.

Various colleagues have been using this solution in the treatment of acute and chronic infections of the head, and postoperatively, as an irrigating fluid for wound surfaces. It makes an agreeable and nonirritating wet dressing fluid which does not injure or kill new cells after burns, skin abrasions, etc. The dentists have used it to wash out extraction pockets. Howard Stitt has used it to irrigate the lungs in bronchiectasis.

Clinical Notes, Suggestions and New Instruments

ACUTE RHEUMATIC HEART DISEASE TREATED WITH STREPTOCOCCUS ANTITOXIN (SCARLET FEVER SERUM)*

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History.—Jean C. J., aged 3½ years, referred by Dr. McCaffery of Freeport, Pa., had been taken ill three weeks prior to hospitalization with irregular fever, later occasional delirium and one mild convulsive attack, sweats, definite but not severe mobile arthritis, and myositis. The previous history was negative.

Examination.—The child was well developed and exceedingly bright, pale, and sensitive to pain. The tonsils were large and acutely inflamed, the tonsillar nodes large and tender. The lungs were normal. The heart was enlarged; there was a mitral murmur. The liver was normal. The spleen was palpable at the costal margin. The abdomen otherwise was normal. The joints of the extremities were slightly swollen but very painful and tender, especially the knees and ankles.

Course of the Disease.—There was a relapsing fever for six weeks. The eighth week was ushered in with a septic temperature curve, accompanied by daily shivering or chills, and an extremely erratic pulse ranging from 95 to 160. This continued for three weeks into the eleventh week of the disease, the patient growing worse and showing evidences of exhaustion. A severe enterocolitis developed, lasting ten days. At this time the clinical picture was thus summarized: acute rheumatism, acute tonsillitis, cervical adenitis, high and irregular fever, sweats, mobile arthritis, enlarged heart, heart murmur, precardial pains, periodic tachypnea, slight cough, large spleen, subcutaneous nodules at the finger tips and toes, and evanescent petecheal spots, seldom lasting a full day, over various portions of the body. The blood culture was sterile; weekly leukocyte counts varied between 7,200 and 9,000 per cubic millimeter. Polymorphonuclears ranged from 20 to 51 per cent; lymphocytes from 48 to 80 per cent; the hemoglobin was 65 per cent; the red blood count was 2,320,000. The urine showed occasional red blood cells. There were no evidences of nephritis. The roentgen-ray examination revealed the heart one and one-half times the normal size; the thymus shadow was considerably larger than normal; the liver was normal; the spleen extended below the costal margin; the kidney outline was normal; the frontal and maxillary sinuses were clear.

The diagnosis was: acute rheumatic heart disease with evidences of a serious endocarditis and myocarditis.

Treatment.—At the beginning, salicylates and alkalis were given, and the usual symptomatic treatment of rheumatic fever. At the end of the eighth week, when the patient was having a septic temperature such as occurs in ulcerative endocarditis, and when the enterocolitis seemed to be exhausting the patient, the condition seemed desperate.

Feb. 5, 1927, an editorial in The Journal cited a case of acute rheumatic carditis by Toogood[1] in which rapid recovery followed the use of streptococcus antitoxin (scarlet fever antitoxin). Two days later and after it had been determined that our patient was not hypersensitive to the serum, 10 cc. of scarlet fever streptococcus antitoxin-Lederle was injected intramuscularly. Within twenty-four hours the patient's temperature began to recede, reaching normal by the seventh day, and the pulse receded steadily from 140 to 110 on the seventh day. The disease seems to have ended by a typical lysis. The patient's general condition improved, appetite returned, weight increased and a final recovery seems to have taken place. This case was studied intensively by my associates, Drs. Borgman and Hook, and by the resident physician, Dr. Blough. All of us believed that we were dealing with a case of septic carditis in which recovery seemed barely possible. This was also the opinion of the family physician, Dr. McCaffery, who referred the case to me.

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* From the Medical Service, Presbyterian Hospital.

[1] Toogood, E. S.: Scarlet Fever Antitoxin in a Case of Endocarditis and Myocarditis, Lancet **2**: 545 (Sept. 11) 1926, cited in The Organism of Rheumatic Fever, editorial, J. A. M. A. **88**: 405 (Feb. 5) 1927.

SUMMARY

The ordinary antistreptococcic serum has been used in this type of case without success. Is it possible that scarlet fever antitoxin, which differs from antistreptococcic serum, has a specific effect other than that of a foreign protein? And is the result reported by Toogood and the result in this case *due to such specific action? Our clinical result was very striking. A patient who seemed destined to die showed a* complete change in the course of the disease and returned to normal within a week after the injection of this antitoxin.

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OSTEITIS OF THE COCCYX

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The report of cases of osteitis and osteomyelitis of the coccyx seems to be exceedingly rare. Monnier[1] describes a case of acute osteomyelitis of the coccyx in a girl, aged 17 years, which ran the course of an acute infectious process and which at first was diagnosed as typhoid, a mistake not infrequently made in acute osteomyelitis of other bones.

The case of chronic osteitis of the coccyx here recorded seems of unusual interest, as it was responsible for an entirely different condition; viz., stricture of the rectum. Indeed, when I first saw the patient, stricture of the rectum was the predominating lesion.

REPORT OF CASE

A man, aged 35, first noticed "soreness and sensitiveness" at the tip of the spine in December, 1923, and was more comfortable standing than sitting. He could not remember having received a blow on this part of his body, but recalled having slipped and fallen on his back on a spring-board during the *previous summer.* The pain grew more severe, and within two weeks an abscess developed over the coccyx, which was opened, Jan. 1, 1924, by Dr. J. S. Stewart, Jr., the attending physician. During the next two months, three other abscesses formed and were opened by Dr. Stewart. These continued to drain as sinuses leading down to the coccyx.

In the meantime the patient began to experience difficulty in defecation, and passed ribbon stools. Dr. Stewart found a stricture of the rectum, 3 inches above the anal orifice. The stricture was not hard and thick as in carcinoma, but was unyielding and narrow, as if a cord had been tied around the rectum at this point, reducing the lumen to about the size of the tip of the index finger. Three blood Wassermann tests were negative, and six doses of neoarsphenamine did not produce any effect on the stricture or the discharging tracts. The stricture was dilated twice a week without permanent improvement.

Roentgen-ray examination now showed an inflammatory condition of the coccyx, and on March 23, under ether anesthesia, the several sinuses were opened and excised. Three abscess pockets near the coccyx were opened. Nearly the whole of the bone apparently was diseased, and the entire bone was removed. The pathologic diagnosis of Dr. John Funke was chronic osteitis. Following the removal of the coccyx and drainage of the wound, the rectal stricture disappeared completely.

At the time of the operation no opening was found into the rectum. Fourteen months elapsed before the patient was seen again. The wound had almost healed but continued to drain, so that in May, 1925, every tract and pocket again was laid open and curetted, and still no communication with the rectum was discovered. Following this operation, after several months' drainage, every tract had closed except one. In January, 1926, this tract was opened and was found to communicate with the rectum well above the internal sphincter.

Having recently been disappointed in attempting to cure a fistula of this kind by cutting through the internal sphincter with a scalpel, I decided to try the old method of passing a ligature through the fistula into the rectum, and tying the two ends together outside the anus. Umbilical tape was used for the purpose; a single knot was tied very tightly, cutting into the sphincter, and then a single bow-knot was tied. Every third day afterward, the bow-knot was loosened and the single knot made as tight as the patient would allow. By the tenth day the ligature had cut its way entirely through the sphincter, with practically no pain to the patient. Evidently rapid union of the severed fibers took place behind the ligature, since the control of the sphincter at this time, while not complete, was very satisfactory. Three months later the patient wrote that the wound had healed perfectly and that his sphincter did not give him any trouble.

The late Dr John Wesley Long of Greensboro, N. C., told me that this method of treating rectal fistula was practiced centuries ago by an order of monks in Europe, who established great reputation by their cures. Instead of tying the ligature, however, or using a rubber band, the ligature was attached to a weight, and the patients were allowed to walk in the garden of the monastery, with the weight dangling below.

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SUBCUTANEOUS EMPHYSEMA IN A CASE OF BRONCHIAL ASTHMA

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The rarity of this complication in bronchial asthma is the occasion for the present report. One would think that the usual violent respiratory efforts combined with the pulmonary *emphysematous condition of chronic asthma cases would produce* the condition more frequently, but such is apparently not the case. Though I have handled several hundred asthma cases in the last few years, I have never seen or heard of cutaneous emphysema resulting from this cause, and so far as I am able to learn, there are no reports in American medical literature. The only foreign references I have been able to locate are British.[1] Air infiltration of the subcutaneous tissues has, of *course, long been known to accompany other pathologic changes* of the respiratory tract.

REPORT OF CASE

G. S., a girl, aged 8, seen, Jan. 17, 1927, with Dr. R. E. Bowen of San Antonio, had had an attack of asthma that had lasted about forty-eight hours. The child had had asthmatic paroxysms every month or six weeks for the past six years. The attacks were invariably preceded by more or less typical vasomotor rhinitis.

Examination revealed the usual, heavy, generalized, bilateral râle formation, and dyspnea, of a not particularly violent attack of bronchial asthma. The heart was normal, and a general physical examination was negative. Marked air infiltration of several hours' duration existed over the upper parts of the chest and the back, over both shoulders, the neck and both sides of the lower half of the face. The appearance at first glance resembled that of well developed infectious parotitis. Crepitation over the infiltrated areas was unmistakably typical. There was no great amount of pain, but considerable tenderness on pressure. A roentgenogram of the chest, January 18, did not show a foreign body, spontaneous pneumothorax, pneumonia or other pathologic conditions, and did not reveal the location of air origin. Air could easily be seen in the fascial layers of the chest and neck.

The mother stated that this was the first asthma attack accompanied by any swelling under the skin.

The asthma yielded promptly to a single hypodermic injection *of epinephrine. As the history suggested hay-fever as an* etiologic basis of the asthma, pollen precautions were taken to avoid any recurrence, and no paroxysms succeeded the relieved attack. Under rest, ten days was required for the absorption of the infiltrated air.

Subsequent intradermal tests of the child showed positive reactions to various pollens, foods and animal epithelial emanations. There has been no recurrence of the asthma to date. The child will be watched to note whether any subsequent attacks are again accompanied by subcutaneous emphysema.

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[1] Monnier, L.: Rev. d'orthop. **13:** 161, 1904.

[1] Whitby, C. J.: Subcutaneous Emphysema in a Case of Spasmodic Asthma, Brit. M. J. **1:** 1-73, 1905. Calverley, E. J. C.: Interstitial Emphysema Beneath the Deep Cervical Fascia as a Complication of Asthma, Brit. M. J. **2:** 1399, 1902.

Special Articles

GRADUATE MEDICAL EDUCATION IN EUROPE *

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The present report is based on my personal observations in seventeen medical centers of Europe during May, June and July of 1926, on printed material and letters from twelve other European medical centers in response to inquiries during the fall of 1926, and on personal communications from American physicians who visited these and other European medical centers during 1926.

Many American physicians are familiar with the opportunities for graduate medical education in Europe prior to the war. Hence an historical survey will be omitted and attention confined to a study of the changes that have occurred since the war, and to the present status.

CHANGES IN GRADUATE MEDICAL EDUCATION

The principal changes in conditions since the war are in:

1. The teaching personnel.
2. The mental attitude of medical teachers as affected by social depression or stimulation in their country.
3. The lack of financial resources for equipment.
4. The increased trend toward medicine of citizens recently released from military service.
5. The flood of students from southeastern Europe, Asia and Africa.
6. National antipathies developed by war.

Changes in Teaching Personnel.—Naturally, some of the great European medical teachers have died in the twelve years since 1914. It is doubtful, however, whether the mortality in this group has been greater since the beginning of the war than it was during any similar period before the war. Certainly, one visiting European countries for the first time since the war is gratified to find most of the men whom he knew before the war still alive and very active. They have grown older to be sure, but I firmly believe that in most instances these older men have maintained their mental vigor better than they would have had nothing occurred to change the routine of their lives. Of course, their total span of life may not be so long, but one is struck with the keen interest in medical science and medical education of most of even the elderly men whom one knew before the war. It is true one meets occasionally a man who is still "fighting the war," all of whose psychologic processes are skewed by his dwelling on real or fancied injustice, and whose value to medical science and medical teaching is thus greatly reduced. But such instances are rare.

There can be little doubt, however, that the crop of young men who should have made progress in scientific medicine during the half decade beginning with 1914 has been materially reduced. Indeed, the retarding period was probably two or three years longer than the period of the war itself, since immediately after the war in many countries the unsettled political and social conditions were not conducive to scientific research. However, if one may judge by the number of young men who have begun such study in the last three or four years, there will be no dearth in the near future. Indeed, not only is there a large number of eager graduate students at work but, it seems to me, their rate of work and its direction toward clinical problems has been materially augmented since 1914. Whether this research will lead to as large a proportion of dependable and desirable results as previously, one may question.

Mental Attitude of Medical Teachers Affected by Social Depression or Stimulation in Their Country.—There is no doubt that the instability of the French franc, and with it the Belgian franc, at present has a very depressing influence on scientific progress in France and Belgium. This condition was even more marked in Germany when the value of the mark was reduced to the vanishing point. But Germany and Austria, though still under a heavy financial burden, now have a fairly stabilized currency and their financial worries are therefore relatively less. The dissatisfaction of the learned classes in Austria with what they regard as their country's political isolation still has a material effect in some instances in reducing their intellectual efficiency.

In Switzerland and Holland, interest in medical education has been notably increased since the war. This is evidenced not only by the general mental attitude of medical men but also by generous public appropriations of funds for new buildings; for example, the Dermatological Institute in Zurich and the Colonial Institute in Amsterdam.

In two countries, Italy and Czechoslovakia, medical as well as other education is in that stage of elation which in the United States one associates with a general "boom." Italy, under the Fascist régime headed by Mussolini, has had a tremendous awakening of its national life. The extension of this influence to the medical profession is greatly in evidence. The Italian medical profession, during the country's long period of political and financial struggle, had always cherished a tradition of scholarship, based particularly on the fundamentals of anatomy and physiology, which had a marked influence even in its departments of purely clinical medicine. The lack of support of an intelligent public clientele, however, greatly offset the good results of this tradition. But with the tremendous reform spreading in all avenues of the social state in the last few years, cooperation of the awakened public with the medical profession has been most gratifying. I do not know of any other country in which the medical profession is more "on its toes" than the Italy of today.

Long repression of the Czech universities by German influences before the war had not killed their enthusiasm. Since they have been relieved of this repression, it is now literally bubbling over. There are, no doubt, many serious gaps in the faculties of their medical schools, and one notes the youthfulness of many of their research workers. But these youths are aging and their judgments ripening.

I am told that the conditions in Spain and Hungary resemble to some extent those in Italy and Czechoslovakia. In Spain this is because of the greatly increased wealth, and in Hungary because of the enthusiasm at national independence.

Lack of Financial Resources for Material Equipment.—In many countries, but particularly in France, Belgium, Austria and Germany, one hears much of the lack of funds for equipment for teaching and research, both in schools and in hospitals. There is no duobt that much of this is true, since the governments are not in position to make large donations, and since the rich men of these countries and especially the new "war" rich have not yet come to realize their obligation to support education and research. It is possible that the age-long tradition of the maintenance of elaborate estates and luxurious methods of living operate to prevent great private donations for public good, so common in the United States. There, also, the wealthy classes are probably more heavily taxed than in the United States.

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* Read before the Annual Congress on Medical Education, Medical Licensure and Hospitals, Chicago, Feb. 15, 1927.

Too much stress, however, must not be laid on lack of financial resources as retarding medical education and research. There are many places, Vienna for example, in which magnificent work is going on under the most adverse financial conditions. As always, it is the spirit that counts rather than luxurious material equipment.

Increased Trend Toward Medicine of Own Nationals Recently Released from Military Service.—In this country the undergraduate departments of all our universities have been unusually crowded since the war, partly by the return of young soldiers whose schooling was interrupted for two years. In every one of the warring countries in Europe, this condition has even been much more marked than in the United States, since the interruption by the war was more complete and for a much longer period. This crowding has temporarily so overburdened the teaching staffs of the schools with undergraduate work that they possess considerably less time for engaging in research or supervising the work of graduate students.

Flood of Students from Southeastern Europe, Asia and Africa.—Besides the great increase of their own citizens, almost all the older schools of continental Europe are receiving a flood of students from southeastern Europe, western Asia and northern Africa. Everywhere one hears that these students are too frequently without educational background or tradition, without adequate preliminary preparation, and with the desire only to acquire knowledge for purely utilitarian purposes. Almost everywhere they are considered undesirable, and yet in most places it has been almost impossible to formulate rules which would eliminate them. Just after the war, Russian refugees swarmed into the universities of many other countries in such numbers and proved themselves such a disturbing factor that few of them now remain.

National Antipathies Developed by War.—It is doubtful whether there is a university worthy of the name in any European country except Russia in which a serious-minded American medical student would now find himself handicapped by antipathies remaining since the war. I was everywhere impressed by the absence of any such general feeling. There are, of course, individuals who are still unreconciled and tend to blame the Americans for their present condition. Just at present one hears quite a lot, or rather reads quite a lot, concerning the ill feeling of the French for Americans. I am sure this feeling is unusual in medical circles.

FIELDS OF MEDICINE IN EUROPE WITH OPPORTUNITIES FOR SERIOUS STUDY SUPERIOR TO THOSE IN THE UNITED STATES

The time was, and not so long ago, when every American medical student who wished to get the best in almost any special field of medicine was forced to go to Europe for his inspiration and opportunities. For almost every subject that day is gone. Scarcely a single field of medicine remains in which there may not be found in America in at least a few places inspiration and opportunity quite the equal of those in Europe. But in many fields there are not nearly enough research or clinical assistantships available in American medical schools, with adequate teaching staffs and facilities, to supply the widespread demand for more thorough graduate training. And it is, of course, also true that there are many advantages incidental to European scientific study, history, art, music and the drama, which greatly broaden the mind susceptible of being broadened and which are usually lacking or inoperative in the student's own town or medical school in America, however good the local inspiration and material equipment for purely medical graduate study.

Any attempt to compare the opportunities in the several fields of medicine in America with those in Europe must be based largely on individual contacts, which from their very nature are usually inadequate for sweeping judgments. My own observations would suggest that in the fields of physiologic chemistry, anatomy, bacteriology, roentgenology, pediatrics and general surgery there are many opportunities for graduate study in America under inspiring masters and with abundant facilities equal or superior to those in Europe. On the other hand, in pathology, tropical medicine, dermatology, neurology, general internal medicine and orthopedics, the graduate student will find much more extensive and, in some instances, superior opportunities in Europe. Physiology apparently is an even game of high excellence on the two sides of the Atlantic. In the head specialties, the ideals of the students and graduate teachers in both Europe and America all too frequently seem to be centered too much on technic. There are exceptions on both sides of the Atlantic, of course, but altogether too much of the teaching appeals only to the poorest minds entering the medical profession, to men whose sole object is to become sufficiently skilful in as short a time as possible to enable them to make money in the easiest manner.

It may not be amiss to speak further of some of the factors that seem to me to make for superior opportunities in certain fields for graduate study in Europe.

Necropsies.—In the United States there are, perhaps, half a dozen institutions in which the graduate student may have a chance to get his hands into two or more necropsies a day throughout the year. In continental Europe there is scarcely a medical school in which he cannot have an experience as extensive as this. It is a disgrace to American medicine that the intelligent cooperation of the public has not been more widely obtained in permitting examination of the bodies of the dead. At present, dozens of graduate medical students ask every year where they can get adequate opportunity for postmortem service. There are very few places where there is sufficient material under inspiring supervision to warrant a good man spending his time for a year, either as a preparation for pathologic teaching or as a groundwork for clinical medicine or surgery. On the other hand, if he has the funds and can understand German, French or Italian, he can find in Europe any number of places where the material is abundant and the supervision and instruction splendid.

Tropical Medicine.—Doubtless the restricted colonial policy of the United States is greatly responsible for our limited development in tropical medicine. Although, since the Spanish-American War, much interest has developed in the diseases of our tropical colonial possessions, the attitude of most of the medical profession in the United States toward these problems is one of disinterestedness. We tend to think on parallels of latitude rather than meridians of longitude. Our governmental policy has left to private benefaction and to business interests the work in the study and control of tropical diseases, which, in England, Holland and Italy, for example, receive relatively superior governmental support, and which greatly interest the medical profession of these several countries. The serious student of tropical medicine, after exhausting opportunities in the United States, will find an extensive field open to, and still before, him in any of the countries named.

Dermatology.—Why dermatology has been so slow in developing in America is difficult to explain. Certainly it is not from lack of material, as used to be thought. Yet many of the larger cities in the United States are without competent dermatologists, and very few places in the United States provide the graduate student with the opportunity to study more than the mere rudiments of the specialty. In Europe there are many such, probably with Vienna and Paris still leading.

Neurology and Psychiatry.—In America too many of our neurologic and psychiatric institutions are in communities distant from medical-teaching centers, and either by this isolation or by their organization are frequently not utilizable for teaching purposes. In most European countries, the universities absolutely control the teaching facilities in such institutions. The special student of neurology or psychiatry, in most instances, at present cannot well afford to omit European study.

Internal Medicine.—Many of the older great hospitals in America were organized and built exclusively for the care of the patient. Education has been an afterthought. In too many the chief interest of the members of the staff is neither education nor even the care of the hospital patient, but private practice outside the hospital. Medical schools attempting to utilize the clinical material in these hospitals for graduate or undergraduate teaching purposes may often obtain only grudging cooperation on the part of the management and only half-hearted service on the part of the visiting staff. Students are sometimes regarded as a nuisance. The management considers it essential to provide luxurious conveniences, and at the same time to reduce the per capita cost to a minimum. As a consequence, professional service suffers.

Nearly all the great medical hospitals of Europe are as much a part of the university as are the laboratories, and the student is as much at home in them. Patients are well cared for, although with conveniences far from luxurious. The per capita cost is low and the number of beds high. The professor of medicine may have come into his position through extensive laboratory and research training, or he may have come from general practice. It is noteworthy that, whatever may have been his previous experience, almost without exception he sees that the routine care of patients is of a high order, that groups of patients in whose diseases he is at the time especially interested are held for intensive study, and that his assistants, both undergraduate and graduate, are required to make careful investigations, from both the clinical and the laboratory standpoints. There are few places in America where there is such complete control of such a large number of hospital medical cases by one competent head as in any one of many university clinics in continental Europe.

Orthopedics.—The superior anatomic training of the older European surgeons gave them excellent preparation for meeting the tremendous demands in orthopedic surgery incident to the World War. Indeed, it may be that the frequency of European wars has always tended to develop orthopedic surgery more than it would have been otherwise. Certainly, even when one leaves out of account the clinics of the great geniuses in orthopedic surgery, such as Putti of Bologna and Robert Jones of Liverpool, there is still an astonishingly large number of orthopedic clinics throughout Great Britain and continental Europe in which the facilities in material and inspiration are most alluring to the graduate student. This is in marked contrast to most orthopedic centers in the United States, where often the material is deficient, the leadership is lacking, or the organization fails to provide facilities for the graduate student.

TYPES OF GRADUATE STUDENTS

American graduate students of medicine seek in the hospitals, clinics and laboratories of Europe about the same opportunities they seek in America.

Visitors.—By far the largest group of American physicians abroad consists of the more experienced general practitioners, physicians or surgeons who are visiting Europe, usually with their families, during the tourist season, and who plan to spend a few days or occasionally a few weeks in each of several medical centers attending clinics and demonstrations and, when possible, discussing with men, with whose writings they are familiar, topics of clinical or fundamental scientific interest. These visitors are everywhere received with courtesy and given every opportunity they may reasonably expect. But they suffer under a number of handicaps, some of which are unnecessary. For example, they frequently go in the summer and early autumn when university men are tired from teaching or are on their vacations. Medical pilgrimages to Europe should be made between October and May, rather than during the summer months.

Another serious handicap is the visitors' usual inability to understand any foreign languages. It is true that most of the leaders in medicine in continental Europe speak some English, but quite naturally they lecture in their own language, since the bulk of their audiences is composed of students from their own country. Only occasionally clinics and demonstrations are put on in English for the benefit of large groups of traveling Americans. The American physician who expects to get the most out of European travel should at least understand German and be able to ask intelligent questions in that language. He is still better off if he also understands French. Just at present, he will miss excellent opportunities if he does not also have some knowledge of Italian. From my experience with a considerable number of graduates of class A medical colleges during the last decade, I regret to say that the present language requirements of the medical student are almost uniformly failing to train them sufficiently in any foreign language to permit them to utilize it as a means of getting further training abroad. The traveling American physician who understands only English may utilize his time to the best advantage in the clinics of the British Isles.

A further handicap to which the older traveling American physician unnecessarily subjects himself is the neglect to forward proper letters of introduction. The unpleasant memory of the American physicians who thronged Europe from fifteen to thirty years ago, and many of whom were so obviously untrained, still lingers in the minds of the older and more influential medical teachers of Europe. They do realize, however, that any American physician who has a connection with a class A medical school is likely to be better trained They also regard with respect the clinician or laboratory worker who has made some worthy contribution to the literature of his subject A brief and conservative statement of a man's teaching position and of his scientific contributions in a letter of introduction not only orients him properly but insures him a reception which he may not otherwise obtain

Short-Term Students.—The next most numerous class of American medical graduate students in Europe consists of those who desire to be intensively instructed, usually in some limited field, for a relatively brief period, from a few weeks to a few months These men may be already practicing a specialty and wish to have further instruction in that field; they may be general practitioners expecting to confine themselves to a limited specialty, or they may be recent graduates who wish to take work either in a clinical specialty or in some preclinical field preparatory to entering a clinical specialty. Aside from clinics, there are relatively few opportunities for instruction in short-term courses in Europe The most popular, the broadest and perhaps, in general, the best opportunities are to be had in Vienna, although Berlin and Budapest also provide excellent facilities in many subjects There are few such in London except in clinical demonstrations previously mentioned.

I regret to say that some American medical students doing this sort of work abroad are not of the highest type and bring opprobrium on American medical schools. They are apparently ignorant of the fundamentals and seek only easily obtainable certificates It is deplorable that such persons can obtain, with little exertion, certificates of attendance bearing elaborate seals from institutions with world-honored names. These they afterward exhibit in their offices at home as proof to the uninformed public that they are graduates in special fields from great universities. Of course, the American medical profession can do nothing to eliminate them, and unfortunately most of the postgraduate teaching staffs of the European centers that offer brief, intensive postgraduate courses are so anxious for the remuneration for their services that they do not take adequate means to eliminate the unfit. If the universities fostering graduate instruction abroad would adopt more stringent rules, parallel with those of the American Medical Association, concerning the granting of certificates and diplomas, much could be done to eliminate this evil.

In criticizing this class of American medical students abroad one must not forget that they constitute only a relatively small percentage of students, for the bulk of students seeking intensive instruction are really honest and earnest, and fairly well equipped with a general medical training.

Clinical Assistants.—The third group of graduate American medical students going abroad is composed of those who wish to spend a considerable period as clinical assistants. Six months is usually the minimal time for which this opportunity is sought, the year being the much more common unit, while many extend their stay to two or three years. At present, such assistantships are purely voluntary and in some instances indeed are paid for by the student, since the universities do not have the funds to pay even such small stipends to other than their own citizens as they sometimes paid before the war.

In Vienna, Budapest, Berlin and some of the other centers where intensive didactic courses are given, volunteer assistants are sometimes selected by members of the staff from among the paying students taking these courses But the most satisfactory, and in many places the only way volunteer assistantships can be obtained is through previous introduction by some one known to the professor in question, or through the student's home university.

In many places such assistantships in medical fields may be obtained by properly qualified and properly introduced American applicants. In many places they cannot be obtained in general surgery, especially in operative work, since there is usually great pressure from the university's own students who, quite properly, are given priority. Perhaps opportunities to assist in general operative surgery are more open in Budapest than in any of the other centers at present, where this privilege may be obtained for a fee. Assistantships in diagnosis and the nonoperative treatment of general surgical patients may be obtained by competent, well recommended men Excellent and comprehensive experience in orthopedics and all the nonoperative clinical branches may be obtained by similar men in a great many places. The American medical student who wishes to do this sort of work should invariably take care to make his arrangements through some well known man who knows him, or through some university long before starting abroad for such study. Any foreign student dropping in unannounced and unexpectedly on any organization that is doing worth-while work, either in Europe or in America, will almost certainly find himself seriously handicapped for several weeks or months

Research Assistants.—The fourth group of American medical graduate students going abroad is composed of those who wish to engage in special fields of research, usually in the preclinical branches While there is usually no longer any great necessity for American medical graduates to go abroad for opportunities to do laboratory research work because of lack of facilities at home, yet it sometimes happens that some one abroad has made a discovery, perhaps involving a new technic, which is related to work already in progress on this side of the water. In such a case the simplest and the fairest way of checking up results and of getting help in one's own investigations is to obtain permission to work in the laboratory of the European investigator. I am delighted to say that the attitude of secrecy concerning new discoveries and new technic which prevailed years ago, so far as I can discover has, in large measure, disappeared. The capable, earnest and properly recommended American investigator who wishes to work with almost any good man abroad is received with every courtesy and given every facility available. It seems to me that universities both here and abroad might, with great profit, make even many more such interchanges of research assistantships than they do at present. It may be difficult to make clear to governing bodies of universities the value to the institution of sending junior members of its faculty abroad for clinical assistantships in preparation for their teaching, but it ought to be easy to make clear to them the great benefit that might accrue from the interchange of research assistantships.

Exchange Professorships.—This leads me to mention the desirability of more exchange professorships or lectureships in medical subjects. There is a considerable flow of European lecturers to the United States at present and they are doing much good. At the same time one cannot but feel that there is equal need in European universities for American lecturers in certain fields in which American medicine has made outstanding advances, as in certain phases of experimental anatomy (growth), physiologic chemistry (endocrines), physiology (nutrition), pediatrics (child welfare), hygiene (food-handling), general medicine (exophthalmic goiter) and surgery (gastric).

ORGANIZATION

The customs of most European universities are so materially different from those in America that at first the graduate medical student abroad may have considerable difficulty in understanding and complying with them. However, when the graduate student is doing work in a medical science, such as anatomy or chemistry, he can almost always register in the university and receive credit for his work in units of academic years. In some places the semester is the unit.

In most places graduate work in clinical branches is done under very loose university control, and no attempt is made to give university credit. The prospective student simply selects the man with whom he wishes to work and makes personal application to him; the university may or may not know anything about the student. In Vienna, Berlin and Budapest, there are university departments or committees through which graduate-student organizations work in the arrangement of courses, the regulation of fees and the granting of certificates. The medical student associations of these places may render valuable service to the prospective graduate student in medicine from America, and certainly should be consulted by every one going for the first time to any one of these places. It should be remembered, however, that they are concerned almost entirely with the arrangement of intensive courses of instruction and are seldom able to give much help in securing clinical assistantships or opportunities for research.

In London the Fellowship in Medicine serves as an admirable information bureau and central registration point for the clinical worker in that city. The Fellowship is also extending its information and registration service to cover similar opportunities in other cities of the British Isles. Here again, however, the service rendered is chiefly of interest to the visitor or short-term student who desires to visit clinics and hear lectures. If one wishes to do more than this, he must make arrangements personally with the professor with whom he wishes to work.

The American University Union in London and in Paris is able to give valuable information concerning opportunities for graduate work in medicine. Its offices in both cities also provide central meeting points for Americans studying there.

In general, it may be said that if the American physician wishes to spend time in Europe visiting clinics, listening to lectures or taking brief intensive courses, he cannot do better than seek information from the agencies mentioned. But if he wishes to spend a considerable period, a year or more, actually working either in the laboratory or in hospital wards, he should make his arrangements with the professor with whom he wishes to work. He usually can do this most satisfactorily through the American university with which he is connected.

EUROPEAN CLINICS PROVIDING GOOD OPPORTUNITIES FOR AMERICAN MEDICAL GRADUATE STUDY

It is, of course, impossible with the limited information at hand to list all the good places where one may do graduate medical work abroad under satisfactory conditions. Even if such a list were complete it would be good at most for only one year, since changes are constantly occurring. However, since such a list has not been published recently it may not be amiss to append one to this article. The institutions are only those of which I have personal knowledge or which have been recommended to me personally on reliable information through American sources. The list is in no sense complete. Indeed, I suspect that some of the best opportunities for work available in Europe are not included, but unfortunately I have no accurate information concerning them.

List by Subjects

Anatomy

Berlin
Berne
Bologna
Bonn
Edinburgh
Glasgow
Liverpool
London
Lyons
Padua
Paris
Prague
Strasbourg
Vienna
Warsaw
Zurich

Bacteriology

Berlin
Berne
Brussels
Cambridge
Copenhagen
Edinburgh
Glasgow
Liverpool
London
Naples
Paris
Strasbourg

Biochemistry

Brussels
Cambridge
Edinburgh
Leipzig
London
Lyons
Stockholm

Dermatology

Berne
Brussels
Budapest
Edinburgh
Heidelberg
Milan
Munich
Paris
Prague
Strasbourg
Vienna
Zurich

Medicine

Amsterdam
Barcelona
Belfast
Berlin
Berne
Birmingham
Brussels
Budapest
Copenhagen
Frankfurt
Freiburg (Germany)
Glasgow
Leipzig
London
Lyons
Milan
Munich
Padua
Paris
Prague
Rome
St. Andrews
Sheffield
Stockholm
Strasbourg
Utrecht
Vienna
Zurich

Neurology and Psychiatry

Amsterdam
Edinburgh
London
Munich
Padua
Paris
Prague
Rome
Strasbourg
Utrecht
Vienna
Zurich

Neurologic Surgery

Berlin
Bologna
Brussels
Glasgow
London
Manchester
Oslo
Paris
Rome
Vienna

Obstetrics and Gynecology

Amsterdam
Berlin
Berne
Bologna
Brussels
Budapest
Dublin
Florence
Frankfurt
Freiburg (Germany)
Glasgow
Heidelberg
Lausanne
Leeds
Liverpool
London
Milan
Munich
Oslo
Padua
Paris
Pisa
Prague
Rome
Stockholm
Strasbourg
Vienna
Utrecht
Zurich

Ophthalmology

Amsterdam
Berne
Bonn
Brussels
Edinburgh
Freiburg (Germany)
Glasgow
Leiden
London
Munich
Prague
Upsala
Utrecht
Vienna
Zurich

Orthopedics

Berlin
Berne
Bologna
Frankfurt
Liverpool
London
Milan
Munich
Vienna
Zurich

Otolaryngology and Rhinology

Berne
Bordeaux
Budapest
Edinburgh
Frankfurt
London
Prague
Utrecht
Vienna
Zurich

Pathology

Amsterdam
Barcelona
Berlin
Berne
Brussels
Budapest
Copenhagen
Edinburgh
Florence
Frankfurt
Freiburg (Germany)
Genoa
Glasgow
Heidelberg
Lausanne
Leeds
Lyons
Milan
Montpellier
Munich
Naples
Oslo
Padua
Paris
Prague
Rome
Strasbourg
Turin

List by Subjects—Continued

Utrecht
Vienna
Zurich

Pediatrics

Berlin
Bologna
Breslau
Budapest
Freiburg (Germany)
Glasgow
Leiden
London
Milan
Munich
Rome
Stockholm
Vienna
Zurich

Pharmacology

Berlin
Edinburgh
Freiburg (Germany)
London
Padua
Strasbourg
Utrecht
Vienna

Physiology

Barcelona
Berne
Brussels
Cambridge
Edinburgh
Heidelberg
Leiden
Liége
Liverpool
London
Lyons
Milan
Naples
Oslo
Sheffeld
Stockholm
Strasbourg

Turin
Upsala
Utrecht
Zurich

Physical Therapy

Bologna
Vienna

Surgery (General)

Amsterdam
Berlin
Berne
Bonn
Brussels
Budapest
Copenhagen
Edinburgh
Florence
Frankfurt
Freiburg (Germany)
Genoa
Glasgow
Hague
Hamburg
Heidelberg
Leeds
Leiden
Leipzig
Liverpool
London
Lund
Lyons
Manchester
Milan
Munich
Oslo
Padua
Paris
Pisa
Prague
Rome
Sheffield
Strasbourg
Turin
Utrecht
Vienna
Zurich

Roentgenology

Budapest
Edinburgh
Florence
Genoa
Liverpool
London
Milan
Paris
Strasbourg
Vienna
Warsaw

Syphilology

Berlin
Budapest
Edinburgh
Frankfurt
London
Paris
Strasbourg
Vienna

Thoracic Surgery

Hamburg
Leiden
London
Munich
Vienna

Tropical Diseases

Amsterdam
Hamburg
Liverpool
London
Naples
Rome

Urology

Berlin
Berne
Budapest
London
Paris
Vienna

Hygiene

Paris

LIST BY CITIES

Places starred are known to give short clinical or laboratory courses.

Amsterdam.—University of Amsterdam, Amsterdam, Netherlands. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine. A new building of the Colonial Institute houses the Institute of Hygiene (Tropical Medicine) of the university. Prof. W. M. deVries, head of the department of pathologic anatomy, and Prof. B. Brouwer, head of the department of neurology, visited the United States in 1926.

Barcelona.—University of Barcelona, Barcelona, Spain. Properly qualified American graduates may be given opportunity to work in medicine, physiology or pathology. For information, address the dean of the faculty of medicine, University of Barcelona, Barcelona, Spain.

**Berlin.*—Medizinische Fakultät der Friedrich-Wilhelms-Universität. For information concerning short courses, address Director of Kaiserin Friedrich-Haus for postgraduate medical education, Berlin, N. W. 6, Luisenplatz, 2-4 Kaiserin Friedrich-Haus.

For clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine of the university.

Valuable assistance concerning courses and facilities of students, academic procedures, and so forth, may be obtained from Amerika-Institut, Berlin, N. W. 7, Universität Str. 8, Berlin, Germany.

Berne.—Kantonale Universität, Berne, Switzerland. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine.

Professor Asher, director of the institute of physiology, has recently visited the United States.

**Birmingham.*—University of Birmingham, Birmingham, England. For information concerning demonstrations and lectures, address W. F. Haslop, Esq., M.B., F.R.C.S., the University, Edmund Street, Birmingham, England.

Bologna.—University of Bologna, Bologna, Italy. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine.

The Institute Rizzoli, under the direction of Professor Putti, is a wonderfully complete institute for orthopedic patients. Professor Putti recently visited the United States.

**Bordeaux.*—University of Bordeaux, Bordeaux, France. For information concerning special courses, apply to Dr. Leon Felderman, 4428 York Road, Philadelphia, Pa.

**Bristol.*—University of Bristol, Bristol, England. For information concerning clinical assistantships in special branches of hospital practice, address the director of postgraduate studies, Pathologic Department, University of Bristol, Bristol, England.

Brussels.—University of Brussels, Brussels, Belgium. For information concerning clinical and research assistantships, address the president of the faculty of medicine of the university.

Prof. P. Vandervelde, president of the faculty of medicine, Prof. A. Slosse, director of the physiologic institute, and Dr. Pierre Depage have recently visited the United States.

**Budapest.*—An "Official Guide of Postgraduate Work in Hungary for English Speaking Physicians" is issued annually conjointly by the Hungarian Postgraduate Medical Committee and the American Medical Association of Budapest, and may be obtained from the Royal Hungarian University Press of Budapest.

**Cambridge.*—University of Cambridge, Addenbrooke's Hospital. For information concerning demonstrations, write Dr. J. Alden Wright, 54 Trumpington Street, Cambridge, England.

For information concerning opportunities for research, address the registry of the University, Cambridge, England.

Copenhagen.—University of Copenhagen, Denmark. For information concerning clinical and research assistantships, address the dean of the faculty of medicine.

Prof. August Krogh, head of the department of physiology, and Prof. Knud Faber, head of the department of internal medicine, have recently visited the United States.

Dublin.—University of Dublin, Dublin, Ireland. A diploma in gynecology and obstetrics may be granted registered medical practitioners with six months' residence at the Rotunda Hospital and six months' study at Trinity College. Three months of the latter may be coincident with the hospital residence. A similar diploma in psychologic medicine may be granted also.

For information, address the dean of the faculty, School of Physic, University of Dublin (Trinity College), Dublin, Ireland.

**Edinburgh.*—University of Edinburgh, Edinburgh, Scotland. For information concerning courses, address the secretary of postgraduate courses in medicine, University New Buildings, Edinburgh, Scotland.

Opportunities for unofficial clinical and research work should be arranged with various departments. Address applications and inquiries to the dean of the faculty of medicine, University New Buildings, Edinburgh, Scotland.

Sir Norman Walker, secretary of the Royal College of Physicians of Edinburgh, Sir Harold Stiles, emeritus professor of surgery, and Mr. D. P. D. Wilkie, professor of surgery, have recently visited the United States.

Florence (Firenze).—University of Florence, Florence, Italy. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine and surgery.

Genoa.—University of Genoa, Genoa, Italy. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine and surgery. (About half of a large number of magnificent new buildings for the university and city hospital were completed in 1926.)

Cav. Dott. Luigi Durante of the department of surgery was a student in the United States in 1915.

**Glasgow.*—University of Glasgow, Glasgow, Scotland. Postgraduate courses summer months (June to October): general medical and surgical courses, special clinical courses, clinical assistantships. Winter months: demonstrations in medicine, surgery, obstetrics, ophthalmology. Address the secretary, Glasgow Postgraduate Medical Association, University, Glasgow, Scotland.

For information concerning clinical and research assistantships, address the professor in charge of the department and the dean of the faculty of medicine.

Mr. Archibald Young, professor of surgery, visited the United States in 1926. Dr. J. R. Learmonth of the department of surgery was a student in the United States in 1924 and 1925.

Hague.—Visitors interested in surgery should seek appointment in advance with Dr. Jan Shoemaker, Gemeente-Ziekenhuis, Zuidwal 83, The Hague, Netherlands. Dr. Shoemaker has visited in the United States.

Lausanne.—University of Lausanne, Lausanne, Switzerland. For information concerning opportunities to work in laboratories or hospitals, address Prof. F. Genin, dean of the faculty of medicine, University of Lausanne, Lausanne, Switzerland.

Leeds.—University of Leeds, Leeds, England. For information concerning clinical and research assistantships, address the professor in charge of the department and the dean of the faculty of medicine.

Sir Berkeley G. A. Moynihan, professor of clinical surgery, has frequently visited the United States.

Leiden.—University of Leiden, Leiden, Netherlands. For information concerning clinical and research assistantships, address the professor in charge of the department and also the dean of the faculty of medicine.

Prof. William Einthoven, director of the institute of physiology, recently visited the United States.

Leipzig.—University of Leipzig, Leipzig, Germany. For information, address the director of the institute where it is desired to work or the dean of the faculty of medicine, University of Leipzig, Leipzig, Germany.

Liverpool.—University of Liverpool, Liverpool, England. The mastership of orthopedic surgery is open to graduates of approved universities. The diploma in medicine, radiology and electrology, and the diploma in public health are open to graduates holding qualifications registered by the General Medical Council of Great Britain The mastership of hygiene and also the diplomas in tropical medicine and tropical hygiene are open to graduates of approved universities. The degree of doctor of philosophy may be conferred for two years' research in the department of biochemistry, bacteriology, physiology, or entomology on graduates of the university and colleges included in the list issued under the authority of the Association of American Universities of 1917 For detailed information apply to Mr Walter J Dilling dean of the medical faculty, University of Liverpool, Liverpool, England The application should be supported by a letter of recommendation from the applicant's dean of the faculty

*_London_ —University of London, London, England For detailed information concerning lecture courses and demonstration courses, apply to the Fellowship of Medicine and Postgraduate Medical Association, No 1, Wimpole Street, London, W 1, England

For clinical or research assistantships apply directly to the several schools, or of those in the University of London apply to Mr Edwin Deller academic registrar, University of London, South Kensington, London, S W 7

American University Union, 50 Russel Square London, W C. 1, England

Mr Deller, Mr W Sampson Handley professor of surgery at Middlesex Hospital Dr A V Hill, professor of physiology, University of London, and Dr Archibald Leitch, director of the Cancer Hospital Research Institute, visited the United States in 1926

*_Manchester_ —Royal Infirmary Manchester, England For information concerning clinical lectures and demonstrations given each autumn and spring, write to E Bosdin Leech, M D, 16 St John s Street, Manchester England

Milan —University of Milan, Milan Italy For information concerning clinical and research assistantships, address the dean of the faculty of medicine The university buildings are all new and modern

Montpellier —University of Montpellier Montpellier, France Foreign students not applicants for degrees or diplomas are admitted on presentation of satisfactory evidence that they can follow the teaching of the faculty For information, address the secretary of the faculty of medicine, University of Montpellier, Montpellier, France

Munich —Ludwig Maximilians Universität, Munchen Properly qualified graduates of good character and with sufficient knowledge of German may be received as clinical or laboratory assistants when facilities permit Application should be made to the head of the clinic or laboratory with whom work is desired and also to the secretary of the university

Professor Friedrich Muller, professor of medicine, visited the United States in 1926

Padua —University of Padua, Padua Italy For information concerning clinical and research assistantships, address the rector of the University of Padua The present rector is Professor Luigi Lucatello, professor of medicine

*_Paris_ —University of Paris Paris France For all information concerning clinics, hospitals, postgraduate courses and clinical and research assistantships address the dean of the faculty of medicine 12, Rue de L Ecole de medecine, Paris (IVe)

For general information, address American University Union, Continental Division, 173 Boulevarde Saint Germain Paris, France

Prof Edouard Rist, in internal medicine, and Prof J E Forrestier, in roentgenology, visited the United States in 1926

Prague (Praha, Cechoslovakei) —Charles University (Czech) For information concerning clinical and research assistantships, address the dean of the medical faculty

Deutsche Universitat (German) For information concerning clinical and research assistantships, address the secretary of the medical faculty of the German university

Prof Arthur Biedl of the department of experimental pathology, Deutsche Universitat, visited the United States in 1923

Rome —Royal University, Rome, Italy For information concerning clinical and research assistantships, address the director in charge of the department and also the dean of the faculty of medicine and surgery

Prof Roberto Allessandri and Prof Raffale Bastianelli of the department of surgery visited the United States in 1926

St Andrews —The James McKenzie Institute for Clinical Research, St Andrew's, Scotland For information concerning courses for general practitioners, write Dr J Hunter Paton, secretary.

*_Sheffield_ —University of Sheffield, Sheffield, England For information concerning clinical lectures and demonstrations, write to the Honorable Secretary, Committee of Clinical Studies, University, Sheffield, England

Stockholm —Karolinska Medico Kirurgiska Institut For information concerning clinical and research assistantships, address the dean of the faculty

Prof H C Jacobaeus, head of the department of internal medicine, visited the United States in 1926

Strasbourg —University of Strasbourg, Strasbourg, France Properly qualified American graduates are cordially welcome in clinical services and scientific departments For details, address the dean of the faculty of medicine, University of Strasbourg, Strasbourg, France.

Utrecht —Rijks Universiteit, University of Utrecht, Utrecht, Netherlands For information concerning clinical and research assistantships, address the director of the faculty of medicine

Prof R Magnus, director of the pharmacologic institute, visited the United States in 1926

*_Vienna_ —Postgraduate courses are in progress continually throughout the year except during the months of July, August and September, when the number of courses is reduced because of staff vacations. Detailed information is given in the Blue Book of the American Medical Association of Vienna Address the secretary of the American Medical Association, viii, Alserstrasse 9, Vienna, Austria Hungary.

The best method for obtaining assistantships is directly with the professor concerned Prof Karl F Wenckebach, head of the first clinic in internal medicine; Prof Ernst Fuchs of the department of ophthalmology, Dr Oskar Frankl of the department of gynecology, and Dr A Schuller of the department of neurology, have recently visited the United States

Warsaw —University of Warsaw, Warsaw, Poland. American graduates from medical schools of equal standing with those of Poland may be received as volunteer assistants for any length of time after obtaining permission from the directors of the hospitals or departments of the Warsaw medical school in which they may wish to work Detailed information may be obtained directly from these or from the dean of the faculty of medicine, University of Warsaw, Warsaw, Poland, or through Prof Dr. G Modrakowski, dean of the faculty of medicine

Zurich —University of Zurich, Zurich, Switzerland For information concerning clinical and research assistantships, address the professor in charge of the department and also the rector of the university

Prof Felix Nager of the department of otolaryngology visited the United States in 1926

MEDICAL PRACTICE IN CUBA

ADDRESS OF DR. J. M. PENICHET, DELEGATE OF THE CUBAN FEDERATION OF PHYSICIANS TO THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

I wish to thank the President, officers and members of the American Medical Association for the honor that has been conferred on the Cuban Federation of Physicians, inviting our institution to participate in this annual reunion.

I also wish to express my personal thanks for your kind reception. First of all I bring a message of friendship to the members of the American Medical Association from the three thousand physicians of my country. Our executive committee has sent me to Washington, and I am here to explain to you what we are, what we have been doing, and what we hope to do in the future. Perhaps a better knowledge of our present conditions will help to enlarge the field of mental speculations or of practical adaptations along the lines of ideals that we pursue.

I know that this cannot be accomplished in a day, but somehow I feel that you will recognize the importance and the purity of principles of our cause.

The medical profession in Cuba has had three very interesting periods in its evolution. The one before the War of Independence, the one during the war, and the one subsequent to the establishment of the republic.

I will not go into details, but before the War of Independence the practice of medicine was absolutely free. Each physician had his own patients. He was honored and respected by the family. He was able to make and save enough money to live well and to protect himself in his old age. During the war these physicians were the first to sacrifice the comforts and pleasures of life. Giving up everything they had, a large number of them died for their country. This war was called the physicians' war, and that age can be named the romantic age.

Things have changed. At the present moment, and unless our efforts lead us to a final victory, the practice of our noble profession in Cuba will be almost impossible.

I will try to prove my assertion.

Our population is, according to our last census, a little over 3,000,000 inhabitants. There are more native whites than negroes, but the foreigners, especially the Spaniards, represent just about half of the former. We have 3,000 physicians practicing in the island, and they are Cubans by a large majority. If things were such as they should be, we would have an average of a thousand persons to every physician. Supposing that only 10 per cent of this number should be in need of our services, then we would have an average of a hundred patients to every physician. But this is not so. There are 666 individuals out of a thousand who belong to the great Spanish societies for the protection of health. This leaves 334 probable patients. Supposing 10 per cent of this number have need for medical services, we have really only thirty-four to depend on.

About fifty years ago the Spaniards, in order to protect their immigrants, established a type of society which in the beginning answered the purposes for which it was created, the medical attention of the laboring class. But right from the start the patrons took command of the board of directors and soon afterward they also joined in the privileges of their employees. In a very few years a number of other societies were founded, as many as there are provinces in Spain. For the small amount of $2 a month any member is entitled to the services of a specialist, and in case that his condition should require hospitalization, he will have at his disposal the very best equipped in the country. Besides, he can get a certain form of preliminary instruction and his family may participate in the different courses in music, painting and sculpture. If he is a sociable man, his club is ready to receive him and there he will find, among the luxuries of these magnificent buildings, every possible sort of entertainment. If he does not care to deal with our national or foreign banks, he has a bank of his own. If he goes to moving pictures or to the theater, he has every opportunity in the world to please himself.

This would be an ideal conception for the laboring class; but the rich, the very rich, belong just as well to these societies. The highest representatives of the banking business, commerce, industry, government and politics are the principal associates of these institutions.

And it may surprise you to know that all the money comes out of their hospitals. Cuban physicians work day and night; they very seldom take a vacation—perhaps just a few of the lucky ones may do so—and the salary they get is something ridiculous. That is why we have founded the Cuban Federation of Physicians, to fight against these powerful trusts and free the medical profession. We have had already two strikes which we have lost, but we keep on fighting for the justice of our cause.

There are other things which we are dealing with. We are trying to raise the morals of our class. We are in contact with our national university, high schools, and private ones so that the efficiency of all of them shall come up to the standard of the best in the world. We are doing away with quacks and every other representative of medical fraud. We are trying to pass a number of laws in our congress, among them laws regulating the practice of optometry; in a word, we are doing as much as we can for the benefit of the public and that of the medical profession.

Gentlemen, friends, we are today celebrating a mass meeting in the city of Havana. It will be like a ray of sunshine, a stimulant which will make our hearts beat with joy, if you, members of the American Medical Association, would send a cable to the Cuban Federation of Physicians, just saying that on this side of the world, in this wonderful country of Washington and Lincoln, there are minds and souls capable of understanding us and ready to uphold our ideals, which after all are the ideals of the great medical family.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION. W. A. PUCKNER, SECRETARY.

POLLEN EXTRACTS-CUTTER (See New and Nonofficial Remedies, 1927, p. 34).

Pollen extracts-Cutter are now marketed as follows: in capillary tubes for diagnostic tests; in complete treatment set packages consisting of three vials representing graduated concentrations: 1 in 10,000, 1 in 1,000 and 1 in 100, respectively.

The following additional products have been accepted:

Alkali Weed Pollen Extract-Cutter; All Scale Pollen Extract-Cutter; Box Elder Pollen Extract-Cutter; Burning Bush Pollen Extract-Cutter; Corn Pollen Extract-Cutter; Foxtail Pollen Extract-Cutter; Mountain Cedar Pollen Extract-Cutter; Tumbleweed Pollen Extract-Cutter; Western Water Hemp Pollen Extract-Cutter.

POLLEN EXTRACTS (GLYCERO-SALINE)-MULFORD.—Liquids obtained by extracting the dried pollen of plants with a liquid consisting of 66⅔ per cent of glycerin and 33⅓ per cent of saturated sodium chloride solution.

Actions and Uses.—See Allergic Protein Preparations, New and Nonofficial Remedies, 1927, p. 23.

Dosage.—See Allergic Protein Preparations, New and Nonofficial Remedies, 1927, p. 23.

Pollen extracts (glycero-saline)-Mulford are marketed in bulk treatment packages consisting of one vial containing 1 cc. of the glycero-saline pollen extract and two 10 cc. vials of physiological solution of sodium chloride containing 0.5 per cent of phenol for making dilutions, and in treatment sets consisting of:

First series: five vials (doses 1 to 5, inclusive) containing, respectively, 25 protein units, 50 protein units, 75 protein units, 100 protein units and 150 protein units, accompanied by five vials of sterile distilled water containing 0.5 per cent of phenol.

Second series: five vials (doses 6 to 10, inclusive) containing, respectively, 200 protein units, 250 protein units, 375 protein units, 500 protein units and 625 protein units, accompanied by five vials of sterile distilled water containing 0.5 per cent of phenol.

Third series: five vials (doses 11 to 15, inclusive) containing, respectively, 750 protein units, 875 protein units, 1,000 protein units, 1,125 protein units and 1,250 protein units, accompanied by five vials of sterile distilled water containing 0.5 per cent of phenol.

Complete series: fifteen vials containing doses 1 to 15 inclusive, described in the First, Second and Third series, accompanied by fifteen vials of sterile distilled water containing 0.5 per cent of phenol.

Fourth series: five vials (doses 16 to 20, inclusive) each containing 1,250 protein units, accompanied by five vials of sterile distilled water containing 0.5 per cent of phenol.

Lamb's Quarters Pollen Extract (Glycero-Saline)-Mulford; Ragweed Pollen Extract (Glycero-Saline)-Mulford; Timothy Pollen Extract (Glycero-Saline)-Mulford; Wormwood Pollen Extract (Glycero-Saline)-Mulford.

Manufactured by the H. K. Mulford Company, Philadelphia. No U. S. patent or trademark.

A solution containing 66⅔ per cent of glycerin and 33⅓ per cent of saturated sodium chloride solution is thoroughly mixed with the pollen in a quantity to make a 10 per cent pollen suspension. The mixture is agitated occasionally for about seven days, after which the solid residue is removed by filtration. Each cubic centimeter represents the substances extracted from 0.1 Gm. of pollen (100,000 pollen units, approximately equivalent to 25,000 protein units).

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JUNE 11 1927

EDUCATION OF THE PUBLIC IN MEDICINE

At the session of the American Medical Association in Washington, the House of Delegates considered carefully the question of education of the public in matters of medicine and of health. It was recognized that such education is desirable for the good of the public and that it aids the medical profession by securing intelligent cooperation in the control of disease both in the individual and among the public. On the other hand, it was also recognized that the publication of articles on health subjects may serve unduly to advertise an individual and that the articles may reflect individual views, rather than well established scientific fact or the views of physicians as a group. Some system of control seems to be needed, particularly at present when the entire matter is in process of development. The House of Delegates concluded that interviews or articles of an educational nature on medical or health subjects, intended for the lay press or lay audiences, should give expression to the consensus of opinion of the medical profession rather than to personal views which may be in conflict therewith, and that articles should appear preferably under the auspices of the American Medical Association or one of its component societies or constituent associations.

In the matter of education of the public regarding the structure of the human body or its functions in health or of the changes that occur in the human tissues and in the functions in disease, there is seldom occasion for difference of opinion. When differences of opinion do arise, they concern matters not well established, or questions of the economic status of the medical profession or its public policy.

There are today at least fifteen individual physicians conducting health columns for the education of the public. Most of these proffer sound advice; occasionally, a column will be devoted to the promotion of a proprietary product in which the conductor seems to have become unduly interested; sometimes to a peculiar notion as to what constitutes good exercise, as for example the somersaulting mania of one columnist; sometimes to the promotion of too rigorous diets in connection with the idea that obesity is a menace to longevity, and sometimes to the strange notion that disease is entirely a matter of the infecting organism and the individual's natural immunity, and that factors which may lessen his natural immunity have little or nothing to do with the case. The instances mentioned are specific, reflecting material that has appeared in some of these individual health columns in recent weeks.

It would be well for all physicians who write on health subjects to bear the conclusions of the House of Delegates in mind. Sufficient accurate information is available, of which the public is as yet uninformed, to offer material for years to come, at least until the knowledge of the average man relative to the human body and its functions shall have caught up approximately with that of the intelligent man of today. In the meantime, discussions of new discoveries, of proprietary products and of special notions may well be confined to medical periodicals, which constitute an open forum for determining the actual status of things in dispute.

THE SYNTHESIS OF THYROXIN

Modern knowledge of the function of the thyroid may be said to date from the observations of Gull in 1873 and of Ord in 1878 on the disease now known as myxedema, and the observations of Kocher and Reverdin in 1882 on what is sometimes designated as cachexia thyreopriva. In 1891 Murray showed the marked curative effect of so-called thyroid extracts in myxedema, and this fact was independently confirmed by Mackenzie in 1892 and by Fox in the same year. A few years later Magnus-Levy showed that there is a reduced heat production in myxedema, and that thyroid therapy gradually raises the oxidative processes to the normal or above it.[1] An event in the study of the thyroid was the discovery of iodine as a constituent of the gland by Baumann in 1895. This was soon followed by the demonstration that certain chemical “fragments” of the tissue retained the therapeutic potency of thyroid extract. Thyroglobulins were shown to be both active and iodine-containing. Thyroiodin, or iodothyrin, was prepared by disintegration of thyroid glands with strong acid and found to be potent.

Chemical evidence that iodothyrin is not a single substance was secured by the isolation in pure crystalline form of a compound containing 65 per cent of iodine. This brilliant success resulted in 1914 from the work of E. C. Kendall, who named the new thyroid derivative thyroxin. The preparation of thyroxin was highly important from the therapeutic standpoint because it has proved to be enormously potent as a stimulant of metabolism, can be used in accurate dosage, and is administered effectively by the intravenous route. A few milligrams produced pronounced and prolonged effects on an adult. The isolation of a well defined chemical substance further justified the hope of a possible production of the compound by artificial synthesis in the laboratory.

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[1] A review of the physiology, pharmacology and therapy of the thyroid will be found in a series of articles on Glandular Therapy, prepared under the auspices of the Council on Pharmacy and Chemistry of the American Medical Association, and issued in book form.

The announcement by Harington,[2] in 1926, that thyroxin, instead of being a compound of tryptophan as was earlier assumed, is a tetraiodo derivative of the *p*-hydroxyphenyl ether of tyrosine, has been followed by a determination of the orientation of the iodine atoms in the molecule. The chemical structure of the substance is at length clearly established. The crowning achievement is the artificial synthesis of thyroxin by Harington and Barger[3] of London and Edinburgh, respectively. D. Murray Lyon of the University of Edinburgh has made clinical tests of the synthetic product on myxedematous patients which afford a physiologic confirmation of the identity of the synthetic product with natural thyroxin. Thus, on the verge of the centennial of Wöhler's classic synthesis of urea, the first artificial production of a naturally occurring biologic product, the active principle of the thyroid gland has been made available artificially through the chemist's genius for the service of mankind.

THE QUARTERLY CUMULATIVE INDEX MEDICUS

Simultaneously with the opening of the Annual Session of the American Medical Association in Washington appeared the first number of the new *Quarterly Cumulative Index Medicus*, a combination of the *Index Medicus* published by the Army Medical Library with the aid of a grant from the Carnegie Institution, and the *Quarterly Cumulative Index to Current Medical Literature* published by the American Medical Association since 1916. The combination has been welcomed by librarians, by editors, by research workers—indeed, by all interested in medical progress, as a great achievement in the field of medical bibliography. There are published in the world today somewhere between 1,800 and 2,000 medical periodicals. In these appear the fruits of medical investigation in the laboratory, of bedside observations in the hospital and in the clinic, of theories and philosophy developed in the office and in the library. Original articles alone comprise approximately 50,000 titles annually. Many of the articles concern more than one subject, so that they are necessarily indexed under more than one heading. Moreover, the interrelationships of subjects and overlapping may make necessary numerous cross-references. The index is planned to make the location of this material as simple a matter as possible in order to aid all those wishing to refer to the knowledge of the past and to lead the way to new knowledge in the future.

In an address at the dedication of the School of Medicine and Dentistry of the University of Rochester in October, 1926, Dr. John C. Merriam, director of the Carnegie Institution in Washington, traced the manner in which medicine is affected by the evolution of society. Changes in social organization are of direct importance in relation to the practice of medicine. The same subject was discussed almost a hundred years ago by Dr. Oliver Wendell Holmes in an address before the Massachusetts State Medical Society. Science is fact, but medicine is both an art and a science. As such it is inevitably influenced by the social organization of the community in which it develops. Society is continually changing, and in these modern times so rapidly that the changes are easily apparent in a single generation. Any prospect as to the future is obviously dependent on the knowledge of the steps by which man came to his present estate. Dr. Merriam lists six factors on which the advancement of society depends. First, the securing of new knowledge by discovery, invention and research; second, unification of knowledge and the understanding of the interrelation of its parts; third, the development of adequate means for establishing continuity in knowledge; fourth, the physical and mental effectiveness of the individual; fifth, continued betterment of economic and political organization, and, sixth, enlargement of the fundamental or basic capacity of the individual.

The development of the *Quarterly Cumulative Index Medicus* is a step toward the development of adequate means for establishing continuity in knowledge, so that the discoveries of one generation may be transmitted to the next. If the lessons of the present were to disappear with the present, civilization would break down and the next generation would have to begin anew to learn the facts that are already known. A vast amount of unproductive research results from failure to realize the things that have already been demonstrated. So great is the scope of medical literature of the present that the research worker of the future will find the background for most of his problems already laid in writings of the past and of the present.

The *Quarterly Cumulative Index Medicus* is a means for the systematization of medical knowledge. One of the great problems of the future is to simplify still further the carrying of this knowledge to the average physician, so that he may readily avail himself of the best knowledge on any subject. A means for giving to the majority of mankind such of this knowledge as is important for the building of health and the building of better men and women is an ultimate goal.

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[2] Harington, C. R.: Chemistry of Thyroxine, Biochem. J. **20**: 300, 1926.

[3] Harington, C. R., and Barger, G.: Chemistry of Thyroxine: III. Constitution and Synthesis of Thyroxine, Biochem. J. **21**: 169, 1927.

THE "PHOSPHOCREATINE" OF MUSCLE

The study of the function of muscle has experienced many vicissitudes during the past century. This is due in part to the inevitable circumstance that our knowledge of certain fundamental processes associated with the phenomena of contraction has been of slow development. Thus, without a better understanding of the underlying principles of energy transformation, the dynamics of muscular performance could not be adequately interpreted. In part, progress has been delayed by the changing interests that diverted the minds of investigators from one aspect to another. At one time metabolism and the related phenomena have been regarded primarily from the energetic standpoint; at another, more purely chemical considerations have held sway. A recent writer has remarked that of late years the latter have come more to the front as a reaction against the partiality of which the defenders of the purely energetic or caloric theory of metabolism had been guilty. In commenting on the circumstance that the problem of the activity of muscle has accompanied physiology from its cradle, so to speak, the Nobel laureate Meyerhof[1] pointed out that, in the muscle, nature has produced a machine so startling and at the same time so perfect that the explanation of its mechanism could not only give satisfaction to the searching mind but also promise a rich harvest to the technical progress of mankind. And this problem is so clearly a physical one that even the vitalist admits the possibility of its being solved by means of inorganic natural science, for it is nothing else but the question how chemical energy in the animal body is transformed into mechanical work. Meyerhof has also reminded us that, by studying the muscle exclusively from its physical qualities, it has been overlooked that we have to do with a chemodynamic machine. The comprehension of the mechanism could therefore be arrived at only by the combined efforts of chemistry, energetics and physics. On the other hand, the biochemist who analyzed only the dead material was helpless in view of the progress of dynamics. Thus, Meyerhof added, experimental analysis stagnated, going round in a circle, and all the theories of muscular function were condemned to fruitless speculation.

On various occasions attention has been called to the newer contributions to the physiology of muscle.[2] They have served to throw new light on the rôle of glycogen and lactic acid, substances long identified in vague ways with the workings of the muscles. The oft discussed phosphate of muscle has likewise been linked up of late with sugar in the process by which the lactic acid is evolved. An analogy has been found in the demonstrable occurrence of hexose-phosphate in the process of fermentation of sugar. Indeed, it has been alleged that phosphate plays a very important part in the "respiration" of muscle.

Among the nitrogenous components of the contractile tissue, creatine has long been recognized as conspicuous. Calculations indicate that the adult human body contains an average of about 100 Gm. of this characteristic substance, of which 98 per cent is present in the muscles. Its origin, its function and its fate have long been shrouded in mystery; and this is scarcely less true of the closely related blood and urinary component creatinine. A real step in advance is marked by the recent announcement by Fiske and Subbarow[3] from the Medical School of Harvard University regarding the existence of a "phosphocreatine" in muscle. It appears that the tissue ordinarily contains a form of "labile" phosphorus which may be converted into inorganic phosphate when a muscle is stimulated. A period of rest thereafter is attended by a resynthesis of the organic compound. Whenever the content of this "labile" phosphorus compound diminishes, creatine is set free. This remarkable association of creatine with phosphate and the dissociation incident to functional changes presents an entirely new and unsuspected behavior of a compound long puzzling to the student of muscle chemistry. Creatine evidently is not merely an inert substance that chance has placed in the most active tissue of the body.

Current Comment

THE NEW AMERICAN MEDICAL DIRECTORY

The tenth edition of the American Medical Directory has just been completed, and copies are now available for general distribution. More and more this volume is becoming of importance as a source book of statistics on the medical profession and its allied interests. It provides up-to-date biographic data on the 164,002 listed physicians of the United States, its dependencies, and Canada. A study of the present edition of the directory in connection with previous editions yields some interesting statistical data concerning trends in medical practice. During the past ten years a marked decrease in the number of physicians listed in Arkansas, Iowa, Indiana, Kentucky, Missouri, Indiana and Vermont has occurred. On the other hand, California, Florida, Illinois, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio and Washington have shown considerable increases. The new directory contains 10,353 names that did not appear previously; 6,052 names have been omitted since the last directory, these physicians having been reported as deceased. The changes of address during the two year period amounted to 60,029, an average of eighty-two every day. If account is taken of the changes in membership in state medical societies, Fellowship in the American Medical Association, specialties, office hours, teaching positions, and so on, the total number of revisions made in compiling this new edition of the directory reaches an almost staggering figure. One of the new features of the directory is a list of licentiates of the American Board of Examiners, the American Board for Ophthalmic Examinations and the American Board of Otolaryngology. There is also a list of the 145 clinical laboratories included by the Council on Medical Education and Hospitals. The hospitals listed in this edition total 7,816; for each institution the name, location, number of beds, name of medical director or superintendent, and kind of patients handled are provided. The tenth edition of the directory contains 2,575 pages. While its compilation has been a tremendous task, the work has been made much easier by the splendid cooperation rendered by individual physicians, secretaries of various licensing boards, medical colleges and societies and many others who have readily and willingly assisted in furnishing data.

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[1] Meyerhof, O. Chemical Dynamics of Life Phenomena, Philadelphia, 1924.

[2] When a Muscle Contracts, editorial, J. A. M. A. **84:** 442 (Feb. 7) 1925. The Food and Fuel of Athletes, ibid. **84:** 2004 (June 27) 1925. Muscle Work and Protein Metabolism, ibid. **85:** 195 (July 18) 1925. Muscular Exercise at High Altitudes, ibid. **85:** 1971 (Dec. 19) 1925. Lactic Acid and Muscular Function, ibid. **86:** 1217 (April 17) 1926. Muscle Hemoglobin, ibid. **86:** 1986 (June 26) 1926.

[3] Fiske, C. H., and Subbarow, Y.: The Nature of the "Inorganic Phosphate" in Voluntary Muscle, *Science* **65:** 401 (April 22) 1927.

DIABETIC FOODS

A recent food inspection decision of the U. S. Department of Agriculture revokes the official definition of so-called diabetic foods, thus automatically placing such preparations in the class of drugs. The government holds that references to any disease condition in the labeling of such articles implies to the public that they are efficacious treatments, and it therefore asks manufacturers and distributors to eliminate any such references from their trade packages. An investigation showed that "diabetic foods" were being held out to sufferers from diabetes as treatments for their condition rather than as mere dietetic aids in the management of the disease. The action taken is gratifying official support of the effort of the Council on Pharmacy and Chemistry to convince manufacturers that therapeutic recommendations do not have a place on a trade package. In view of the increasing amount of popular instruction that is being given in sound principles of hygiene and preventive medicine, however, the Council has taken a liberal attitude in regard to the advertising to the public of certain kinds of medical preparations. Thus, the Council does not oppose the naming of diseases on trade packages of foods not advertised as curative agents. In passing on a food prepared for use in the diet of diabetics, therefore, the Council does not object to the name of the disease on the trade package, or to a name implying the use of the product in diabetes, provided the advertising put out by the manufacturer makes it clear that the product is not offered as a cure or even as a remedy for the disease. The person who has diabetes and knows it is likely to know also the object and value of a low carbohydrate diet. Indeed, the goal of the best therapy in this disease is the attainment by the patient of ability to regulate his diet intelligently and thus materially to assist the physician in the management of the disease. The greater stringency of the attitude of the government department arises, no doubt, from the fact that it is acting on the basis of a law, the letter of which refers only to the trade package and label. The general application of the new policy will probably not work injustice to any worth-while product. The public should be protected against fraudulent claims of composition, and the department has control over this in any case in which fraud may be shown. Physicians may well confine their recommendations to the products listed in New and Nonofficial Remedies. For these, the claims of composition as well as of therapeutic efficacy have been considered by the Council on Pharmacy and Chemistry.

DIHYDROXYACETONE AND DIABETES

From a quantitative standpoint the carbohydrates represent our most important foodstuff. For this reason, among others, any impairment in the normal catabolism of carbohydrate in the body—any failure to utilize the energy of carbohydrate with the usual facility—represents detriment to the organism. Such a breakdown in the physiologic facilities of the body occurs in diabetes. If the details of the process by which glycogen and glucose, the physiologic carbohydrates, are rendered available in functional performance were precisely known it might be possible to avert or offset defects in carbohydrate metabolism. For example, it has often been assumed that the conspicuous defect in the diabetic condition lies in an inability to convert glucose into the intermediary products which then undergo further metabolic breakdown. Glucose thus heaps up in the blood, not merely because it is formed in undue amounts but because it cannot be started on the regular road of gradual catabolic destruction. Accordingly, if the normal intermediate products arising at various stages of the process were known it might become possible to supply these instead of sugar and its precursors to the body and thus circumvent the inability to start the oxidation of the carbohydrate food. Various intermediate possibilities have been postulated by biochemists; among them, lactic acid, glyceric aldehyde, methyl glyoxal, pyruvic acid, and dihydroxyacetone. The latter substance, $C_3H_6O_3$, has appeared to be particularly promising as an intermediate "substitute" for the body's sugar. The studies of Markowitz and Campbell[1] at the University of Toronto afford a new interpretation of the ready disappearance of dihydroxyacetone in the organism. It is converted into glucose by the liver and used as such. Consequently, as it does not arise in the normal path of the catabolism of glucose, it cannot be used by the diabetic patient more effectively than sugar itself.[2] The hope of being able to furnish the new substance in place of sugar to patients with diabetes so as to produce energy and act as an antiketogenic substance has thus been shattered.

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[1] Markowitz, J., and Campbell, W. R.: The Fate of Dihydroxyacetone in the Animal Body, Am. J. Physiol. **80:** 548 (May) 1927.

[2] Campbell, W. R., and Markowitz, J.: On the Metabolism of Dihydroxyacetone in Pancreatic Diabetes, Am. J. Physiol. **80:** 561 (May) 1927.

PROCEEDINGS OF THE WASHINGTON SESSION

MINUTES OF THE SEVENTY-EIGHTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT WASHINGTON, D. C., MAY 16-20, 1927

(Concluded from page 1816)

MINUTES OF THE SECTIONS

SECTION ON PRACTICE OF MEDICINE

Wednesday, May 18—Morning

The meeting was called to order at 9:30 by the chairman, Dr. Rollin T. Woodyatt, Chicago.

Drs. W. Warner Watkins, Phoenix, Ariz., and G. C. Lake, Washington, D. C., presented a paper on "Malta Fever: Epidemic of Thirty-Five Cases." Discussed by Drs. Allen C. Eustis, New Orleans; F. C. A. Mattison, Pasadena, Calif., and G. C. Lake, Washington, D. C.

Dr. Joseph E. Moore, Baltimore, read a paper on "Treatment of Syphilis of the Central Nervous System." Discussed by Drs. L. M. Gaines, Atlanta, Ga.; Homer F. Swift, New York; P. A. O'Leary, Rochester, Minn.; Gerald B. Webb, Colorado Springs, Colo., and Joseph E. Moore, Baltimore.

Drs. William C. Voorsanger and Fred Firestone, San Francisco, presented a paper on "Undiagnosed Cough: An Intensive Study of Two Hundred Cases."

Drs. Chevalier Jackson, Thomas McCrae and Elmer H. Funk, Philadelphia, presented a paper on "New Growth of the Lungs."

These two papers were discussed by Drs. Gerald B. Webb, Colorado Springs, Colo.; Hugh J. Morgan, Nashville, Tenn.; Paul H. Ringer, Asheville, N. C.; Elmer H. Funk, Philadelphia; John A. Lichty, Clifton Springs, N. Y.; H. F. Stoll, Hartford, Conn.; A. H. Rowe, Oakland, Calif.; C. L. Minor, Asheville, N. C.; William C. Voorsanger, San Francisco; Thomas McCrae, Philadelphia, and Chevalier Jackson, Philadelphia.

Dr. Douglas VanderHoof, Richmond, Va., read a paper on "The Medical Cure of Duodenal Ulcer." Discussed by Drs. Franklin W. White, Boston; John J. Gilbride, Philadelphia; George B. Eusterman, Rochester, Minn.; J. N. Hall, Denver; Seale Harris, Birmingham, Ala., and Douglas VanderHoof, Richmond, Va.

A motion was made by Dr. Henry A. Christian, Boston, to appoint a small committee to cooperate with the Council on Pharmacy and Chemistry in the study of heroin. The motion was seconded and carried.

Dr. Christian also spoke on a fund for the Section on Practice of Medicine, and a collection was taken up.

Dr. J. B. McElroy, Memphis, Tenn., read a paper on "Nephroses." Discussed by Drs. Alfred Stengel, Philadelphia; Louis M. Warfield, Milwaukee; Rollin T. Woodyatt, Chicago; Thomas B. Futcher, Baltimore; H. A. Christian, Boston, and J. B. McElroy, Memphis, Tenn.

Dr. Louis M. Warfield, Milwaukee, read a paper on "Acute Pancreatitis Followed by Acute Diabetes."

Dr. I. I. Lemann, New Orleans, read a paper on "Diabetic Gangrene in the South."

These two papers were discussed by Drs. Frederick M. Allen, New York; Elliott P. Joslin, Boston; James E. Paullin, Atlanta, Ga.; Allen C. Eustis, New Orleans; Abraham J. Rubenstone, Philadelphia, and Louis M. Warfield, Milwaukee.

Thursday, May 19—Morning

Dr. Rollin T. Woodyatt, Chicago, read the chairman's address, entitled "Psychic and Emotional Factors in General Diagnosis and Treatment."

Dr. J. Ramsay Hunt, New York, read a paper on "General Principles Pertaining to the Recognition and Management of Psychic and Emotional Influences."

Dr. Nellis B. Foster, New York, read a paper on "Emotional and Psychic Factors in the Course of Arterial Hypertension and Heart Disease."

Dr. James S. McLester, Birmingham, Ala., read a paper on "Emotional and Psychic Factors in the Production of Disorders of the Digestive Organs."

Dr. Charles Hugh Neilson, St. Louis, read a paper on "Emotional and Psychic Factors in the Course of Diabetes Mellitus and Exophthalmic Goiter, Laryngology and Ophthalmology."

These four papers were discussed by Drs. E. Bates Block, Atlanta, Ga.; Arthur D. Dunn, Omaha; William A. White, Washington, D. C.; Max Einhorn, New York; Eugene S. Kilgore, San Francisco; Edmund Jacobson, Chicago; Stewart R. Roberts, Atlanta, Ga.; E. C. Rosenow, Rochester, Minn.; J. Ramsay Hunt, New York, and Charles Hugh Neilson, St. Louis.

The chairman appointed a committee to reconsider the question and draft resolutions concerning the reintroduction of heroin into the pharmacopeia, consisting of: Drs. Alexander Lambert, New York, chairman; W. S. Thayer, Baltimore; Eugene S. Kilgore, San Francisco, and Stewart R. Roberts, Atlanta, Ga.

Dr. Henry A. Christian, Boston, spoke on the fund.

Dr. David I. Macht, Baltimore, read a paper on "Experimental Contribution on Etiology, Diagnosis and Treatment of Pernicious Anemia."

Drs. George R. Minot and William P. Murphy, Boston, presented a paper on "Treatment of Pernicious Anemia by a Diet Rich in Liver."

These two papers were discussed by Drs. H. M. Conner, Rochester, Minn.; Walter L. Bierring, Des Moines, Iowa; James H. Means, Boston; John A. Lichty, Clifton Springs, N. Y.; David I. Macht, Baltimore, and George R. Minot, Boston.

Friday, May 20—Morning

The following officers were elected: chairman, Dr. James E. Paullin, Atlanta, Ga.; vice chairman, Dr. William H. Robey, Boston; secretary, Dr. Bryce W. Fontaine, Memphis, Tenn.; delegate, Dr. Henry A. Christian, Boston; alternate, Dr. Joseph L. Miller, Chicago; trustees for the fund, Dr. W. T. Longcope, Baltimore, and Dr. W. L. Bierring, Des Moines, Iowa.

Dr. O. H. Perry Pepper, Philadelphia, read a paper on "The Hematology of Subacute Endocarditis."

Dr. Stewart R. Roberts, Atlanta, Ga., read a paper on "Obesity and Heart Disease."

Drs. John Phillips and John P. Anderson, Cleveland, presented a paper on "Cardiac Disturbances Associated with Diseases of the Thyroid Gland."

Dr. C. T. Stone, Galveston, Texas, read a paper on "Heart Disease as Seen in a Southern Clinic: A Clinical and Pathologic Survey."

These four papers were discussed by Drs. Glenville Giddings, Atlanta, Ga.; James E. Paullin, Atlanta, Ga.; Albert A. Hornor, Boston; W. S. Thayer, Baltimore; Paul D. White, Boston (read by Dr. Howard B. Sprague, Boston); John J. Sampson, San Francisco; Nathan Rosenthal, New York; Lulu Hunt Peters, New York; J. Marion Read, San Francisco; Eugene S. Kilgore, San Francisco, and Cary Eggleston, New York.

Dr. H. S. Plummer, Rochester, Minn., read a paper on "Factors in the Postoperative Mortality of Exophthalmic Goiter." Discussed by Drs. Frank H. Lahey, Boston, and W. S. Thayer, Baltimore.

Dr. Warfield T. Longcope, Baltimore, read a paper on "Observations on Metabolic Disturbances in Scleroderma."

Discussed by Drs. John A. Stokes, Philadelphia; Benjamin Jablons, New York; Henry A. Christian, Boston, and Warfield T. Longcope, Baltimore.

SECTION ON SURGERY, GENERAL AND ABDOMINAL

Wednesday, May 18—Afternoon

The meeting was called to order at 2 o'clock by the chairman, Dr. J. Tate Mason, Seattle.

The following papers were read as a symposium on "Fractures":

Dr. Robert B. Osgood, Boston: "Diagnosis and Treatment of Compression Fractures of the Spine." Discussed by Drs. Alan DeForest Smith, New York; James O. Wallace, Pittsburgh, and Robert B. Osgood, Boston.

Dr. Nathaniel Allison, Boston: "Diagnosis and Treatment of Fractures of the Lower Extremity of the Humerus." Discussed by Drs. J. M. Hitzrot, New York, and Fraser B. Gurd, Montreal.

Dr. William Darrach, New York: "Diagnosis and Treatment of Fractures of the Lower Extremity of the Radius." Discussed by Dr. R. S. Hooker, New York.

Dr. Philip Wilson, Boston: "Diagnosis of Fractures of the Os Calcis." Discussed by Drs. F. J. Cotton, Boston; P. B. Magnuson, Chicago, and Philip Wilson, Boston.

Thursday, May 19—Afternoon

The meeting was called to order at 2 o'clock by the chairman.

Dr. J. Tate Mason, Seattle, read the chairman's address, entitled "The Trends of Surgery."

Dr. Charles Bagley, Jr., Baltimore, read a paper on "Meningeal Irritation Resulting from the Extravasation of Blood in the Subarachnoid Space." Discussed by Drs. Harry H. Kerr, Washington, D. C., and Francis C. Grant, Philadelphia.

Dr. Carl H. Hedblom, Chicago, read a paper on "The Early Diagnosis and Surgical Treatment of Bronchiectasis." Discussed by Drs. Howard Lilienthal, New York, and Carl A. Hedblom, Chicago.

Dr. Fred W. Rankin, Rochester, Minn., read a paper on "Colostomy and Posterior Resection for Carcinoma of the Rectum." Discussed by Dr. Daniel F. Jones, Boston; Damon B. Pfeiffer, Philadelphia; Charles T. Souther, Cincinnati, and Fred W. Rankin, Rochester, Minn.

Dr. Richard Lewisohn, New York, read a paper on "Partial Gastrectomy Versus Gastro-Enterostomy in the Surgical Treatment of Gastric and Duodenal Ulcers."

Dr. J. Shelton Horsley, Richmond, Va., read a paper on "Partial Gastrectomy."

Dr. Donald C. Balfour, Rochester, Minn., read a paper on "The Treatment of Lesions of the Stomach and Duodenum Associated with Hemorrhage."

These three papers were discussed by Drs. Charles H. Mayo, Rochester, Minn.; George W. Crile, Cleveland; Frank H. Lahey, Boston; John J. Gilbride, Philadelphia; E. R. Arn, Dayton, Ohio; Richard Lewisohn, New York; J. Shelton Horsley, Richmond, Va., and Donald C. Balfour, Rochester, Minn.

Dr. John Homer Woolsey, San Francisco, read a paper on "Diaphragmatic Hernia." Discussed by Drs. Philemon E. Truesdale, Fall River, Mass.; J. Earl Else, Portland, Ore., and Carl A. Hedblom, Chicago.

Friday, May 20—Afternoon

The meeting was called to order at 2 o'clock by the chairman.

The following officers were elected: chairman, Dr. J. Shelton Horsley, Richmond, Va.; vice chairman, Dr. Harold Brunn, San Francisco; secretary, Dr. Frank H. Lahey, Boston; delegate, Dr. Evart Graham; alternate, Dr. J. Tate Mason.

Dr. E. R. Arn, Dayton, Ohio, read a paper on "The Surgical Treatment of Goiter with Hyperthyroidism."

Dr. J. Earl Else, Portland, Ore., read a paper on "Regeneration of the Thyroid Gland and the Prevention of Recurrent Goiters."

Dr. Martin B. Tinker, Ithaca, N. Y., read a paper on "Some Surgical Problems of Thyroiditis."

These three papers were discussed by Drs. Harry G. Sloan, Cleveland; Howard M. Clute, Boston; E. P. Sloan, Bloomington, Ill.; Wallace I. Terry, San Francisco; J. Tate Mason, Seattle; Lawrence W. Smith, Boston; E. R. Arn, Dayton, Ohio; J. Earl Else, Portland, Ore., and Martin B. Tinker, Ithaca, N. Y.

Dr. John O. Bower, Philadelphia, read a paper on "Controllable Factors in the Mortality of Acute Appendicitis, Fallacies in Present-Day Teaching." Discussed by Drs. Stanley P. Reimann, Philadelphia; Charles T. Souther, Cincinnati; J. H. Clark, Philadelphia, and John O. Bower, Philadelphia.

Dr. Donald Macrae, Jr., Council Bluffs, Iowa, read a paper on "Management of Acute Conditions of the Abdomen Complicated by Marked Ileus or Septic Invasion of the Peritoneum." Discussed by Drs. Edward P. Richardson, Boston; J. Shelton Horsley, Richmond, Va., and Donald Macrae, Jr., Council Bluffs, Iowa.

Dr. A. I. MacKinnon, Lincoln, Neb., read a paper on "Jejunostomy: Technic and Indication for this Life-Saving Operation." Discussed by Drs. Charles Gordon Heyd, New York; John H. Woolsey, San Francisco; Donald Macrae, Jr., Council Bluffs, and A. I. MacKinnon, Lincoln, Neb.

Dr. George P. Muller, Philadelphia, read a paper on "The Noncalculous Gallbladder." Discussed by Drs. Lester R. Whitaker, Boston; J. Earl Else, Portland, Ore., and George P. Muller, Philadelphia.

Dr. Amos R. Koontz, Baltimore, read a paper on "Clinical Results in the Use of Dead (Preserved) Fascia Graft for Hernia Repair." Discussed by Drs. Harvey B. Stone, Baltimore; Henry W. Cave, New York; B. L. Coley, New York, and Amos R. Koontz, Baltimore.

SECTION ON OBSTETRICS, GYNECOLOGY AND ABDOMINAL SURGERY

Wednesday, May 18—Morning

The meeting was called to order at 9:05 by the chairman, Dr. Arthur H. Curtis, Chicago.

Dr. F. C. Holden, New York, read a paper on "Certain Relations Between Governments in Northern Europe and the Teaching and Practice of Gynecology and Obstetrics."

Dr. Franklin H. Martin, Chicago, read a paper on "Gynecology and Obstetrics in Relation to Hospital Betterment."

Dr. George W. Kosmak, New York, read a paper on "Results of Supervised Midwife Practice in Certain European Countries: Can We Draw a Lesson from This for the United States?"

Dr. Stuart B. Blakely, Binghamton, read a paper on "Teaching Prenatal Care by Means of Posters."

Dr. Effa V. Davis, Chicago, read a paper on "The Effect of Prenatal Care on the Size and Health of the New-Born."

Dr. S. Josephine Baker, Stamford, Conn., read a paper on "Maternal Mortality in the United States."

Dr. L. Maud Parker, Seattle, read a paper on "Postnatal Maternal Care."

Drs. Harold Bailey and H. C. Williamson, New York, presented a paper on "Trial Labor as a Procedure in the Treatment of Patients with Contracted Pelves."

Dr. Alice F. Maxwell, San Francisco, read a paper on "Dystocia in Contracted Pelves."

These nine papers were discussed by Drs. J. W. Williams, Baltimore; Frank Lynch, San Francisco; Rudolph W. Holmes, Chicago; R. L. Dickinson, New York; John O. Polak, Brooklyn; J. B. De Lee, Chicago; Dr. Effa V. Davis, Chicago, and H. C. Williamson, New York.

Dr. George W. Kosmak, New York, presented the following resolution to be acted on at the Friday morning session:

> *Resolved*, That the Section on Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association participate in the activities of the Joint Committee on Maternal Welfare by the annual appointment by the chairman of the section of three Fellows as members of this committee.

Thursday, May 19—Morning

Dr. Arthur H. Curtis, Chicago, read the chairman's address, entitled "Indications for Surgical Intervention in Pelvic Lesions of Infectious Origin, Based on Seventeen Years' Laboratory and Clinical Study."

Dr. Norman F. Miller, Iowa City, read a paper on "Posture Studies in Gynecology." Discussed by Drs John O Polak, Brooklyn; Emil Novak, Baltimore, and Norman F. Miller, Iowa City.

Drs Howard A. Kelly and Curtis F Burnam, Baltimore, presented a paper on "High Frequency Currents in Gynecology." Discussed by Drs George Wyeth, New York; Grant Ward, Baltimore, and Howard A Kelly, Baltimore.

Dr. Samuel R. Meaker, Boston, read a paper on "A Working Classification of the Causes of Sterility"

Dr I C Rubin, New York, read a paper on "Clinical Study of Tubal Patency in Six Hundred Cases of Sterility by Method of Peruterine Insufflation Combined with Kymograph"

Drs. Robert T. Frank and M A Goldberger, New York, presented a paper on "Clinical Data Obtained with 'The F S H.' (Female Sex Hormone) Blood Test'

These three papers were discussed by Drs Donald N Macomber, Boston George G Ward, New York M A Goldberger, New York; Emil Novak, Baltimore Samuel B Meaker, Boston, I C Rubin, New York, and Robert T. Frank, New York

Dr Lucius E Burch Nashville, Tenn, read a paper on "Treatment of Pelvic Inflammation"

Drs John O Polak and Donald Tollerson, Brooklyn presented a paper on "The Sedimentation Test as Clinical Index in Postoperative Prognosis and Complications"

These two papers were discussed by Drs George G Ward New York Joseph L Baer, Chicago, William T Black Memphis, Tenn, R L Dickinson, New York Robert Young Sullivan, Washington, D C Channing W Barrett, Chicago Lucius E Burch, Nashville, Tenn, and John O Polak Brooklyn

Friday, May 20—Morning

The following officers were elected chairman, Dr. J C Litzenberg Minneapolis, vice chairman, Dr Edward Speidel, Louisville Ky secretary, Dr Carl Henry Davis Milwaukee delegate, Dr John O Polak, New York; alternate, Dr Lucius E Burch, Nashville, Tenn

The resolution presented by Dr George W Kosmak, New York, was adopted, and the following were appointed members of the Joint Committee on Maternal Welfare Dr Fred L Adair Minneapolis, Dr Rudolph W Holmes, Chicago, and Dr Robert D Mussey, Rochester, Minn

Drs Floyd E Keene H K Pancoast and E P Pendergrass Philadelphia, presented a paper on "Results of Irradiation in the Treatment of Ovarian Carcinoma' No discussion.

Dr Charles H Mayo, Rochester, Minn, read a paper on "A Case of Paroxysmal Hypertension with Retroperitoneal Nerve Tumor" Dr L G Rowntree, Rochester, Minn, who was to have discussed Dr. Mayo's paper was not present because of illness, but sent his discussion, which was read. Dr Mayo closed

Dr Louis Antupit Hartford, Conn, read a paper on "Postoperative Parotitis in Abdominal Surgery"

Dr. Robert L Craig, New York, read a paper on "Postoperative Ventral Hernia An Analysis of Seventy-Nine Cases Following Seven Thousand Six Hundred and Seventy-Two Laparotomies."

Dr William Thalhimer, Milwaukee, read a paper on "Laboratory Aid in Postoperative Care of Patients with Abdominal Operation."

Dr Waltman Walters, Rochester, Minn, read a paper on 'Causes and Treatment of the Toxemia of Clinical and Experimental Duodenal Fistula"

Dr. F. H. Lahey, Boston, read a paper on "The Management of Some Complications Following Abdominal Operations"

Drs George W. Crile and Charles C Higgins, Cleveland, presented a paper on "Prevention of Postoperative Complications"

These six papers were discussed by Drs. C. S. McVicar, Rochester, Minn.; J. Earl Else, Portland, Ore.; H. D. Furniss, New York; Channing W. Barrett, Chicago; Frank W. Lynch, San Francisco; P. B. Salatich, New Orleans; B. L. Coley, New York; Daniel H. Bessesen, Minneapolis; J L Baer, Chicago, Louis Antupit, Hartford, Conn.; Robert L Craig, New York; William Thalhimer, Milwaukee; Waltman Walters, Rochester, Minn, and George W. Crile, Cleveland.

SECTION ON OPHTHALMOLOGY

Wednesday, May 18—Afternoon

The meeting was called to order at 2 o'clock by the chairman Dr John A Donovan, Butte, Mont.

Dr John A Donovan, Butte, Mont, read the chairman's address

On motion of Dr Arnold Knapp, New York, seconded and carried, the regular order of business was suspended while Dr Hideyo Noguchi addressed the section on the progress of the work on trachoma among the Indians. Discussed by Dr Martin Cohen of New York. A vote of thanks was extended to Dr Noguchi for his kindness in addressing the section

Dr Martin Cohen, New York, read a paper on "Orbital Meningo-Encephalocele Associated with Microphthalmia: Report of Case' Discussed by Drs. Eugene M. Blake, New Haven Conn Lewis W. Crigler, New York; F. P. Calhoun, Atlanta Ga, and Martin Cohen, New York.

Dr Harry A Goalwin, New York, read a paper on "One Thousand Optic Canals A Clinical, Anatomic and Roentgenologic Study" Discussed by Drs. G. E. Pfahler, Philadelphia and H H. Tyson, New York.

Dr F. Park Lewis, Buffalo, read a paper on "A Nonoperative Treatment of Inflammatory Glaucoma"

Dr Harry S Gradle, Chicago, read a paper on "Conjunctival Drain of the Anterior Chamber: An Operative Technic Used in Absolute Glaucoma."

These two papers were discussed by Drs. Allen Greenwood, Boston, John Hunter, Toronto; John M. Wheeler, New York, J W. Charles, St Louis; H L. Hilgartner, Austin, Texas, Kaspar Pischel, San Francisco; William H. Crisp, Denver; F. Park Lewis, Buffalo, and Harry S. Gradle, Chicago

Dr Robert Von Der Heydt, Chicago, read a paper on "Stereophotography of the Anterior Eyeball and Fundus." Discussed by Drs Arthur J Bedell, Albany, N. Y.; Laura A. Lane, Baltimore; Harry S. Gradle, Chicago, and Robert Von Der Heydt, Chicago

Dr Alan C. Woods, Baltimore, read a paper on "Lens Protein and Its Fractions Preparation and Immunologic and Chemical Properties" Discussed by Drs. Zenas H. Ellis, New York, S. R Gifford, Omaha; A. E. Davis, New York; Isaac S Tassman, Philadelphia, and Alan C. Woods, Baltimore.

Thursday, May 19—Afternoon

Dr Kaspar Pischel, San Francisco, demonstrated the localization of foreign bodies in the eyeball by markers in the conjunctiva

Dr F O Schwartz, St Louis, presented a new instrument for use in the intracapsular and extracapsular method of cataract extraction.

Dr. G C Savage, Nashville, Tenn, presented a special spud and light.

Dr Daniel M Velez, Mexico, was introduced to the section

Dr Henning Ronne, Copenhagen, Denmark, read a paper on "The Different Types of the Pathologic Visual Field." No discussion

Dr. Walter I. Lillie, Rochester, Minn, read a paper on "Ocular Phenomena Produced by Basal Lesions of the Frontal Lobe." Discussed by Drs Henning Ronne, Copenhagen, Emory Hill, Richmond, Va.; George E. de Schweinitz, Philadelphia, and Walter I. Lillie, Rochester, Minn

Dr. Albert L Brown, Cincinnati, read a paper on "The Ocular Fundus in the Acute Toxemias. An Analysis of Eight

Hundred and Fifty Cases" Discussed by Dr James P. Fitzgerald, Chicago

Dr S. J. Beach, Portland, Maine, read a paper on "The Selection of Test Type for Refraction "

Dr David W. Wells, Boston, read a paper on "Cycloplegics in Refraction."

These two papers were discussed by Drs W B Lancaster, Boston, William Zentmayer, Philadelphia, Allen Greenwood, Boston, Linn Emerson, Orange, N J Edward Jackson, Denver, S W Newmayer, Philadelphia, Dorland Smith Bridgeport, Conn , William H Crisp, Denver, S J Beach, Portland, Maine and David W Wells, Boston

Dr Meyer Wiener, St Louis, read a paper on Epinephrine in Progressive Myopia" Discussed by Drs William H Crisp Denver, and Meyer Wiener, St Louis

Dr Harlow Brooks, New York, read a paper on 'The Ophthalmologic Needs of the Internist" Discussed by Drs E V L Brown, Chicago, William L Benedict Rochester, Minn , Thomas H Curtin New York and George S Derby, Boston

Dr Arnold Knapp, New York, chairman of the Executive Committee presented the following report

It seemed desirable to introduce at this time a part of our executive session on account of unexpected circumstances It refers to the bestowal of the Howe medal This medal as you know, was endowed by Dr Howe for the one who has most meritoriously contributed to ophthalmology

The Executive Committee takes great pleasure in recommending to this honor George E de Schweinitz (Applause)

Friday, May 20—Afternoon

Dr Harry S Gradle, Chicago, presented the report of the Committee on Compensation Tables, which was accepted and the committee continued.

Dr Edward Jackson, Denver, presented the report of the Committee on Authorized Methods of Determining the Power of Spectacle Lenses, which was accepted and the committee continued

Dr. Edward Jackson, Denver, also presented the report of the Committee on Optometry, which was adopted

The report of the Committee on Trachoma Among the Indians was presented by the chairman, Dr W H Wilder, Chicago, the report was accepted, and the committee was thanked for its work

Dr. Albert E Bulson, Jr, Fort Wayne, Ind, presented the report of the Committee on the Knapp Testimonial Fund, which was adopted

For the Committee on Awarding the Knapp Medal, Dr George S Derby reported that the committee recommended that no award be made this year

The report of the Committee on the American Board of Ophthalmic Examinations was read by Dr. Walter B Lancaster, Boston, the chairman, the report was received and the committee thanked for its work

Dr Harry S Gradle, Chicago, presented the report of the Committee on National Museum of Ophthalmic Pathology, which was received

Dr Albert E Bulson, Jr, Fort Wayne, Ind, reported for the Committee to Draw Up Resolutions Regarding Inadequate Lantern Device No action was necessary on the report

Dr Harry S Gradle, Chicago, in the absence of Dr Cassius Wescott, chairman of the Committee on Ways and Means of Continuing the Year Book, reported for that committee The report was adopted and the committee continued

Dr W H Wilder, Chicago, delegate of the section to the House of Delegates, reported the activities of the House at its Washington Session

It was voted, on motion of Dr Arnold Knapp, New York, that Prof Henning Ronne, Copenhagen Denmark, whose name was omitted by oversight from the list of names presented for election to Honorary Fellowship in the Association be presented at the next annual session for Honorary Fellowship

The following officers were elected chairman, Dr W B Lancaster, Boston, vice chairman, Dr Edmond E Blaauw, Buffalo; secretary, Dr. W C Finnoff, Denver; delegate, Dr W H Wilder, Chicago, alternate, Dr Harry S Gradle, Chicago member, Board of Ophthalmic Examinations, Dr W H Crisp Denver.

Drs Frederick H Verhoeff, Boston; Emory Hill, Richmond Va, and E V L Brown, Chicago, were elected members of the Committee on the Knapp Medal

Mr Lewis H Carris, managing director of the National Committee for the Prevention of Blindness, addressed the section and in accordance with his recommendation it was voted on motion of Dr George Derby that a committee be appointed from the section to cooperate with the National Committee for the Prevention of Blindness The chairman appointed the following committee Dr George Derby, Boston Dr William C Finnoff, Denver, Dr W H Luedde, St Louis

Dr G C Savage Nashville Tenn, read a paper on "The Treatment of the Intrinsic and Extrinsic Ocular Muscles" Discussed by Drs Edward Jackson, Denver, Hiram Woods, Baltimore, L W Fox Philadelphia, Oscar Wilkinson, Washington, D C, David W Wells, Boston, and G C Savage Nashville Tenn

Dr John O McReynolds, Dallas, Texas, read a paper on "The Crystalline Lens System"

Dr Walter R Parker Detroit read a paper on 'Cataract Extraction Comparative Results Obtained by the Combined, Simple and Knapp-Torok Methods of Procedure"

Dr E B Dunphy, Boston, read a paper on Loss of Vitreous in Cataract Extraction"

Dr C S O'Brien Iowa City, read a paper on Local Anesthesia in Ophthalmic Surgery"

Dr L Webster Fox, Philadelphia, read a paper on "Congenital Cataract A Plea for Variety in Its Surgical Treatment"

These five papers were discussed by Drs W H Luedde, St Louis, E C Ellett, Memphis, Tenn , Arnold Knapp, New York, Albert E Bulson Jr, Fort Wayne, Ind , E E Holt, Jr, Portland, Maine, Daniel M Velez, Mexico, F Park Lewis, Buffalo, Edmond E Blaauw, Buffalo, W B Lancaster, Boston, H W Woodruff, Joliet, Ill , Oscar Wilkinson, Washington, D C , W H Wilder, Chicago, Louie V Stegman, Battle Creek, Mich , George Huston Bell, New York, R H T Mann, Texarkana, Texas, and Walter R Parker, Detroit

Drs Hugo A Kiefer and Leon Shulman, Los Angeles, presented a paper on "Personal Observation on Tuberculosis of the Eye The Use of Tuberculin in Its Diagnosis and Treatment" Discussed by Drs T B Holloway, Philadelphia, Malcolm C Rose, New York, George S Derby, Boston, and Leon Shulman, Los Angeles

SECTION ON LARYNGOLOGY, OTOLOGY, AND RHINOLOGY

Wednesday, May 18—Morning

The meeting was called to order at 9 o'clock by the chairman, Dr George M Coates, Philadelphia

Dr George M Coates, Philadelphia, read the chairman's address, entitled "Training in Otolaryngology"

Dr Georges Portmann, Bordeaux, France, read a paper on 'Researches on the Saccus Endolymphaticus Results and Surgical Applications" Discussed by Drs Wells P Eagleton, Newark, N J , George E Shambaugh, Chicago, Lester Mead Hubby, New York, James A Flynn, Washington, D C , S A Schuster, El Paso, Texas, and Georges Portmann, Bordeaux, France

Dr Lester Mead Hubby, New York, read a paper on "The Modus Operandi of Vertigo" Discussed by Drs John Hunter, Toronto, I Leon Meyers, Los Angeles, and Lester Mead Hubby, New York

Dr E R Carpenter, Dallas, Texas, read a paper on "The Importance of Ophthalmology and Otology in the Early Diagnosis of Brain Tumors" Discussed by Drs Lewis Fisher, Philadelphia, Conrad Berens, Jr, New York, and E R Carpenter, Dallas, Texas

Dr. Lee M. Hurd, New York, read a paper on "The Use of Larding Pork to Control Hemorrhage." Discussed by Drs. Walter A. Wells, Washington, D C; George M. Coates, Philadelphia, and Lee M Hurd, New York.

Dr. George B. Jobson, Jr., Franklin, Pa, read a paper on "The Surgical Correction of Cleft Lip and Cleft Palate" Discussed by Drs. George M. Dorrance, Philadelphia; Thomas E. Carmody, Denver, and George B. Jobson, Jr, Franklin, Pa.

THURSDAY, MAY 19—MORNING

Dr. Bert Hempstead, Rochester, Minn, read a paper on "The Intranasal Surgical Treatment of Chronic Maxillary Sinusitis" Discussed by Drs Horace Newhart, Minneapolis, William Mithoefer, Cincinnati, Sidney Israel, Houston, Texas, J A Pratt, Minneapolis; James J King, New York, R G Reaves, Knoxville, Tenn, and Bert Hempstead, Rochester, Minn

Dr William Mithoefer, Cincinnati, read a paper on "A Critical Review of the External Frontal Sinus Operation" Discussed by Drs Joseph D Heitger, Louisville, Ky; Sam Earl Roberts, Kansas City, Mo; J. A Pratt, Minneapolis, Lee M Hurd, New York, S A Schuster, El Paso, Texas, Austin A Hayden, Chicago, Oscar Wilkinson, Washington, D C, M M Cullom, Nashville, Tenn, William Mithoefer, Cincinnati

Dr F E Hasty, Nashville, Tenn, read a paper on "Paranasal Sinus Infection and Swimming." Discussed by Drs. H Marshall Taylor, Jacksonville, Fla; Joseph D Heitger, Louisville, Ky.; George F Fiske, Chicago; M. M Cullom, Nashville, Tenn, H A Rothrock, Westchester, Pa, and F E. Hasty, Nashville, Tenn

Dr. George E. Shambaugh, Chicago, read a paper on "The Problem of Graduate Training in Clinical Medicine" Discussed by Drs. Harris P Mosher, Boston, L. W. Dean, Iowa City, Austin A Hayden, Chicago; Reese Patterson, Knoxville, Tenn; Horace Newhart, Minneapolis, and George E. Shambaugh, Chicago

Dr G Allen Robinson, New York, read a paper on "Progress and Results of Radium Treatment in Neoplasms of the Upper Air Passages" Discussed by Drs Thomas E Jones, Cleveland; Homer Dupuy, New Orleans, and G. Allen Robinson, New York

Dr M C Myerson, Brooklyn, read a paper on "A Manifestation of Uremia in the Pharynx, Larynx, Trachea and Bronchi" Discussed by Dr. N M. Keith, Rochester, Minn.

Dr George D Wolf, New York, read a paper on "Dysphonia Its Significance and Management" Discussed by Drs Frank R Spencer, Boulder, Colo, and Homer Dupuy, New Orleans

Dr Samuel Iglauer, Cincinnati, presented a patient, who demonstrated the use of an artificial larynx

FRIDAY, MAY 20—MORNING

The report of the Executive Committee was presented by Dr Samuel Iglauer, Cincinnati A motion was made, seconded, and carried to adopt the report

The following officers were elected chairman, Dr Frank R Spencer, Boulder, Colo; vice chairman, Dr. Hermon Marshall Taylor, Jacksonville, Fla; Secretary, Dr. William Valentine Mullin, Cleveland, delegate, Dr. Burt R Shurly, Detroit, alternate, Dr William P Wherry, Omaha; executive committee, Dr Samuel Iglauer, Cincinnati, and Dr. Frank R Spencer, Boulder, Colo

Dr M Joseph Mandelbaum, New York, presented a reverse tracheotome

Dr L E Daugherty, Cumberland, Md, presented a new antrum needle

Dr W P Reaves, Greensboro, N. C, presented a sternoradiographic angle head table

Dr F. P. Herman, West Palm Beach, Fla, presented a tonsillectome using diathermic principles

The report of the Committee on Necrology was read by Dr. William V Mullin, Cleveland It was moved, seconded and carried that the report be adopted.

The report of the Committee on Lye Legislation was presented by Dr H. B. Orton, Newark, N. J. A motion was made, seconded and carried that the report be adopted and the committee continued

The report of the Committee on Otorhinologic Hygiene of Swimming was presented by Dr. Marshall Taylor, Jacksonville, Fla A motion was made, seconded and carried that the report be adopted and the committee continued.

The report of the Committee on the Adult Deaf and the Deafened Child was presented by Dr. Harold M. Hays, New York. A motion was made, seconded and carried that the report be adopted and the committee continued.

The following papers were read as a symposium on "Bronchial Asthma":

Dr James S McLaughlin, Philadelphia: "Skin Reactions in Patients with Asthma."

Dr J Alexander Clarke, Jr., Philadelphia: "The Study and Treatment of Asthma."

Dr Philip S Stout, Philadelphia: "Nose and Throat Observations in the Examination of Patients with Bronchial Asthma"

Dr W. F. Manges, Philadelphia: "Roentgen-Ray Observations in Asthma"

Dr Louis H Clerf, Philadelphia: "Bronchoscopy as an Aid in the Diagnosis and Treatment of Bronchial Asthma."

Dr John Eiman, Philadelphia: "Studies in the Etiology of Bronchial Asthma"

Dr H B Wilmer, Philadelphia: "Studies in the Treatment of Bronchial Asthma."

Dr Edwin McGinnis, Chicago: "Asthma: From the Standpoint of the Rhinologist."

These eight papers were discussed by Drs. George Piness, Los Angeles, Grafton Tyler Brown, Washington, D. C.; James T. Wolfe, Washington, D. C.; George N. Jack, Buffalo; Austin A Hayden, Chicago; H. M. Davison, Atlanta, Ga.; Albert H Rowe, Oakland, Calif.; Howard L. Stitt, Cincinnati, Frank R. Spencer, Boulder, Colo.; M. C. Myerson, Brooklyn; J A Pratt, Minneapolis; Leon Unger, Chicago; James S. McLaughlin, Philadelphia; Philip S. Stout, Philadelphia; Louis H Clerf, Philadelphia; H. B. Wilmer, Philadelphia, and Edwin McGinnis, Chicago.

SECTION ON DISEASES OF CHILDREN

WEDNESDAY, MAY 18—AFTERNOON

The *meeting* was called to order at 2:15 by the chairman, Dr H J. Gerstenberger, Cleveland.

Dr. H J Gerstenberger, Cleveland, read the chairman's address

The address of Dr. Gregorio Araoz Alfaro, Buenos Aires, Argentina, was read by title.

Dr. W. D Stroud, Philadelphia, read a paper on "Results in the Convalescent Care of Two Hundred and Twenty-Five Children with Heart Disease Over a Period of Five Years."

Dr. William St. Lawrence, New York, read a paper on "Question of Exercise for Children with Organic Disease of the Heart"

Dr A. D Kaiser, Rochester, N. Y, read a paper on "Relation of Tonsils to Rheumatic Fever, Chorea, and Heart Disease in Children"

These three papers were discussed by Drs. H. F. Swift, New York, Hugh McCulloch, St. Louis; J. L. Morse, Boston; Harold E B. Pardee, New York; Howard B. Sprague, Boston; Frank C Neff, Kansas City, Mo.; Myer Solis-Cohen, Philadelphia; Franklin P. Gengenbach, Denver; George D. Scott, New York; Stanley Nichols, Long Branch, N J, and William St Lawrence, New York.

The chairman appointed an auditing committee on the Jacobi Fund, consisting of: Drs. Samuel S. Adams, Washington, D. C, and H Leslie Moore, Dallas, Texas.

Dr. Joseph Brennemann, Chicago, read a paper on "Congenital Anorectal Stricture with Megacolon." Discussed by Drs J. P. Crozer Griffith, Philadelphia and W. A. Mulherin, Augusta, Ga

Dr. Henry F. Helmholz, Rochester, Minn, read a paper on "Congenital Anomalies of the Urinary Tract." Discussed by Drs. Isaac A. Abt, Chicago, and Hermon C. Bumpus, Rochester, Minn

Dr. W. Walter Wasson, Denver, read a paper on "Thymic Stridor." Discussed by Drs. H F. Helmholz, Rochester, Minn.; H. L. Moore, Dallas, Texas; Isaac A. Abt, Chicago; J. L. Morse, Boston; T. E. Carmody, Denver; Ludo von Meysenbug, New Orleans; J. Victor Greenebaum, Cincinnati, and W. Walter Wasson, Denver.

Thursday, May 19—Afternoon

The meeting was called to order at 2:15 by the chairman.

Dr. Borden Smith Veeder was appointed chairman of a committee to work with the Teachers Association.

The report of the Committee on Education of Pediatrics was read and accepted.

The following papers were read as a symposium on "Pulmonary and Bronchial Gland Tuberculosis":

Dr. E. L. Opie, Philadelphia: "Pulmonary and Bronchial Gland Tuberculosis."

Dr. T. C. Hempelmann, St. Louis: "Clinical Diagnosis of Pulmonary and Bronchial Gland Tuberculosis."

Dr. C. W. Burhans, Cleveland: "Tuberculin and Serodiagnosis of Pulmonary and Bronchial Gland Tuberculosis."

Dr. H. K. Dunham, Cincinnati: "Roentgenographic Diagnosis of Pulmonary and Bronchial Gland Tuberculosis."

Dr. J. C. Gittings, Philadelphia: "Pulmonary and Bronchial Gland Tuberculosis: Prognosis, Prophylaxis and Therapy."

These five papers were discussed by Drs. Charles H. Smith, New York; John A. Foote, Washington, D. C.; Harry M. Greenwald, Brooklyn; Julius H. Hess, Chicago; Eugene L. Opie, Philadelphia; T. C. Hempelmann, St. Louis; C. W. Burhans, Cleveland; H. K. Dunham, Cincinnati, and J. C. Gittings, Philadelphia.

Friday, May 20—Afternoon

The meeting was called to order at 2:15 by the vice chairman, Dr. Edgar P. Copeland, Washington, D. C.

The following officers were elected: chairman, Dr. Hugh McCulloch, St. Louis; vice chairman, Dr. Rood W. Taylor, Minneapolis; secretary, Dr. C. A. Aldrich, Winnetka, Ill; delegate, Dr. Isaac A. Abt, Chicago; alternate, Dr. L. T. Royster, University, Va.

Dr. Isaac A. Abt, Chicago, was nominated to succeed himself as member of the Jacobi Committee, and Dr. Frank C. Neff, Kansas City, Mo., to succeed himself.

A committee on Pediatric Teaching was appointed, consisting of Drs. T. C. Hempelmann, St. Louis, chairman; Paul W. Emerson, Boston; J. Victor Greenebaum, Cincinnati, and E. C. Mitchell, Memphis, Tenn.

A committee for the Study of State Board Requirements in Pediatrics was appointed, consisting of Drs. W. A. Mulherin, Augusta, Ga.; John Aikman, Rochester, N. Y.; H. L. Dwyer, Kansas City, Mo., and Joseph B. Bilderback, Portland, Ore.

The report of the Committee on Obituaries was presented and adopted.

The report of the Committee on the Jacobi Fund was presented and adopted.

A partial report of the Committee for Revision of Causes of Death in the New-Born was made by Dr. John A. Foote, Washington, D. C., and adopted.

The following resolutions were presented and adopted by rising vote:

In appreciation of the thoughtfulness, kindness and hospitality of the Children's Hospital Corporation and staff, be it

Resolved, That the Section on Diseases of Children of the American Medical Association expresses its gratitude and thanks to that organization, and that the secretary be instructed to convey to them, by letter, the sentiment contained in this resolution.

In recognition of the delightful and unusual entertainment furnished by Mr. George O'Connor, of this city, at the section banquet, held at the Willard Hotel, May 18, 1927, be it

Resolved, That the Section on Diseases of Children of the American Medical Association transmit to Mr. O'Connor, through the secretary, the sincere thanks and appreciation of this organization.

As an expression of thanks and of our sincere gratitude for the many kind favors and the genuine hospitality shown to the members of this section by Drs. Edgar P. Copeland, John A. Foote and Frank Leech, all of Washington, D. C., be it

Resolved, That the Section on Diseases of Children of the American Medical Association expresses to these physicians, through the secretary, its profound thanks for their many kind acts and tactful entertainments.

Dr. C. Anderson Aldrich, Winnetka, Ill., read a paper on "The Prevention of Poor Appetite in Children."

Dr. L. W. Sauer, Evanston, Ill., read a paper on "The Malnourished Child: An Individual Intensive Method of Treatment."

These two papers were discussed by Drs. L. T. Royster, University, Va.; John A. Foote, Washington, D. C.; E. J. Huenekens, Minneapolis; Oliver W. Hill, Knoxville, Tenn.; Alfred J. Scott, Los Angeles; M. L. Turner, Des Moines, Iowa; C. G. Grulee, Chicago; Fred Moore, Des Moines, Iowa; C. Anderson Aldrich, Winnetka, Ill, and L. W. Sauer, Evanston, Ill.

Dr. J. T. Christison, St. Paul, read a paper on "Actinomycosis in the Lungs of Children." Discussed by Drs. J. C. Gittings, Philadelphia; H. F. Helmholz, Rochester, Minn.; Michael G. Wohl, Omaha, and J. T. Christison, St. Paul.

Dr. J. Buren Sidbury, Wilmington, N. C., read a paper on "Five Hundred Cases of Transfusion in Infancy." Discussed by Drs. C. G. Grulee, Chicago; Ludo von Meysenbug, New Orleans; W. C. Davison, Baltimore; Franklin P. Gengenbach, Denver; J. C. Gittings, Philadelphia; C. Ulysses Moore, Portland, Ore., and J. Buren Sidbury, Wilmington, N. C.

Drs. E. S. Platou and F. W. Schlutz, Minneapolis, presented a paper on "A Clinical Study of the Treatment of Erysipelas."

Dr. C. Ulysses Moore, Portland, Ore., read a paper on "Breast Feeding in Older Infants." Discussed by Dr. F. W. Schlutz, Minneapolis.

Dr. J. A. Henske, Omaha, read a paper on "Importance of Pediatric Care in Operative Treatment of Harelip and Cleft Palate." Discussed by Drs. F. W. Schlutz, Minneapolis, and John A. Foote, Washington, D. C.

SECTION ON PHARMACOLOGY AND THERAPEUTICS

Wednesday, May 18—Afternoon

The meeting was called to order at 2 o'clock, by the chairman, Dr. W. de B. MacNider, Chapel Hill, N. C.

Dr. J. A. E. Eyster, Madison, Wis., read a paper on "Venous Pressure in Cardiac Decompensation."

Drs. Robert A. Hatcher, New York, and Soma Weiss, Boston, presented a paper on "The Seat of the Emetic Action of Digitalis Bodies."

Drs. Robert L. Levy and Thomas T. Mackie, New York, presented a paper on "Drug Treatment of Heart Disease."

Dr. Paul D. White, Boston, read a paper on "The Treatment of Heart Disease Other Than by Drugs."

Dr. J. Marion Read, San Francisco, read a paper on "Treatment of Cardiac Disturbance Due to Thyroid Disease."

Dr. L. A. Conner, New York, read a paper on "The Rehabilitation of Cardiac Patients Through Organized Effort."

These six papers were discussed by Drs. John Wyckoff, New York; Louis Faugeres Bishop, New York; Cary Eggleston, New York; H. S. Plummer, Rochester, Minn.; John P. Anderson, Cleveland; James Z. Naurison, Springfield, Mass.; Norman M. Keith, Rochester, Minn.; J. A. E. Eyster, Madison, Wis.; Thomas T. Mackie, New York; J. Marion Read, San Francisco, and L. A. Conner, New York.

Thursday, May 19—Afternoon

The chairman appointed a Nominating Committee consisting of Drs. Walter C. Alvarez, Rochester, Minn., chairman; Paul V. Ledbetter, Houston, Texas, and Howard B. Sprague, Boston.

Dr. W. de B. MacNider, Chapel Hill, N. C., read the chairman's address, entitled "Further Studies Concerning the Acid-Base Equilibrium of the Blood in Pregnant Animals." Discussed by Drs. William Thalhimer, Milwaukee, I. M. Procter, Raleigh, N. C., and W. de B. MacNider, Chapel Hill, N. C.

Dr. C. C. Bass, New Orleans, was unable to come to Washington to read his paper on "Fundamental Principles Underlying the Use of Specific Remedies for Infectious Diseases, with Especial Reference to Quinine in Malaria" on account of the situation resulting from the flood disaster in the Mississippi Valley.

Drs. A. M. Snell and J. F. Weir, Rochester, Minn., presented a paper on "Medical Treatment in Diseases of the Liver and Bile Passages." Discussed by Drs. Norman M. Keith, Rochester, Minn., and A. M. Snell, Rochester, Minn.

Dr. W. D. James, Hamlet, N. C., read a paper on "Relative Value of Deep Roentgen Ray, Radium, Myomectomy and Hysterectomy in Uterine Fibromyoma."

Dr. Charles C. Norris, Philadelphia, read a paper on "The Use of Radium in Gynecology."

These two papers were discussed by Drs. C. R. Crutchfield, Nashville, Tenn.; W. D. James, Hamlet, N. C., and Charles C. Norris, Philadelphia.

Dr. Guy Hinsdale, Hot Springs, Va., read a paper on "General Survey of the Actual Therapeutic Value of Hydrotherapy." Discussed by Drs. James M. Anders, Philadelphia; George Knapp Abbott, Takoma Park, Md.; Guy Hinsdale, Hot Springs, Va., and H. D. Offutt, Washington, D. C.

Dr. F. B. Granger, Boston, read a paper on "The Use and Abuse of Physical Therapeutics." Discussed by Drs. Richard Kovacs, New York, and Frank A. Davis, New York.

Friday, May 20—Afternoon

The following officers were elected: chairman, Dr. Rodger I. Lee, Boston; vice chairman, Dr. Norman M. Keith, Rochester, Minn.; secretary, Dr. Robert L. Levy, New York; delegate, Dr. Paul D. White, Boston; alternate, Dr. Cary Eggleston, New York; Executive Committee, Drs. Thomas Ordway, Albany, N. Y.; W. de B. MacNider, Chapel Hill, N. C., and Rodger I. Lee, Boston.

Dr. W. F. Lorenz, Madison, Wis., read a paper on "Clinical Results Obtained from Tryparsamide Therapy in Cerebrospinal Syphilis." Discussed by Drs. Carl Voegtlin, Washington, D. C.; John F. Hogan, Baltimore; Cary Eggleston, New York, and W. F. Lorenz, Madison, Wis.

Dr. Walter C. Alvarez, Rochester, Minn., read a paper on "The Treatment of 'Functional' Digestive Disturbances." Discussed by Drs. Cary Eggleston, New York; G. H. Wood, Detroit, and Walter C. Alvarez, Rochester, Minn.

Dr. Russell F. Sheldon, Boston, read a paper on "Control of Hiccup by Inhalation of Carbon Dioxide: Report of Cases." Discussed by Dr. B. C. Sword, New Haven, Conn.

Dr. C. W. Barrier, Jr., Forth Worth, Texas, read a paper on "The Use of Quinidine in Ectopic Rhythms." Discussed by Drs. Alberta Hornor, Boston; Robert F. Leinbach, Charlotte, N. C., and C. W. Barrier, Jr., Fort Worth, Texas.

Drs. Cary Eggleston, New York, and Thomas J. White, Jersey City, N. J., presented a paper on "The Absorption of Strophanthin Following Sublingual Administration." Discussed by Dr. Carl Voegtlin, Washington, D. C.

Dr. Leslie T. Gager, New York, read a paper on "The Incidence and Management of Hypertension, with a Note on Sulphocyanate Therapy." Discussed by Drs. Abraham Trasoff, Philadelphia; Norman M. Keith, Rochester, Minn., and Leslie T. Gager, New York.

SECTION ON PATHOLOGY AND PHYSIOLOGY

Wednesday, May 18—Morning

The meeting was called to order at 9:30 by the chairman, Dr. Roy G. Hoskins, Boston.

The following members were nominated for Associate Fellowship in the American Medical Association: Earl B. McKinley, New York; A. B. Bolliger, Detroit, and Allan Winter Rowe, Boston.

Roy G. Hoskins, Boston, read the chairman's address, entitled "The Relation of the Suprarenal Gland to the Sympathetic Nervous System."

Drs. A. S. Giordano, South Bend, Ind., and F. C. Mann, Rochester, Minn., presented a paper on "Observations on the Sphincter of the Choledochus." Discussed by Dr. G. E. Burget, Portland, Ore.

Dr. G. E. Burget, Portland, Ore., read a paper on "Regulation of Flow of Bile." Discussed by Drs. A. C. Ivy, Chicago; A. S. Giordano, South Bend, Ind.; Lester R. Whitaker, Boston, and G. E. Burget, Portland, Ore.

Dr. A. H. McIndoe, Rochester, Minn., read a paper on "The Vascular Lesions of Portal Cirrhosis." Discussed by Drs. Norman M. Keith, Rochester, Minn.; J. Shelton Horsley, Richmond, Va., and A. H. McIndoe, Rochester, Minn.

Drs. Frank W. Hartman, Adolph Bolliger and Howard P. Doub, Detroit, presented a paper on "The Cardiovascular Response in Experimental Nephritis." Discussed by Drs. J. W. Sherrill, La Jolla, Calif., and Frank W. Hartman, Detroit.

Drs. T. S. Moise and A. H. Smith, New Haven, Conn., presented a paper on "A Study of the Effect of the Ingestion of Excessive Amounts of Protein on the Kidneys After a Unilateral Nephrectomy in White Rats." Discussed by Dr. L. H. Newburgh, Ann Arbor, Mich.

Dr. R. L. Kahn, Lansing, Mich., read a paper on "Five Years' Application of the Kahn Test." Discussed by Drs. R. R. Gasser, Washington, D. C.; O. B. Hunter, Washington, D. C.; Frank W. Hartman, Detroit; Fred Berry, Columbus, Ohio; M. W. Lyon, Jr., South Bend, Ind.; R. A. Kilduffe, Atlantic City, N. J.; B. S. Kline, Cleveland; R. A. Keilty, Danville, Pa.; C. E. Roderick, Battle Creek, Mich.; A. J. Casselman, Camden, N. J., and R. L. Kahn, Lansing, Mich.

Thursday, May 19—Morning

The meeting was called to order at 9:30 by the chairman, who announced the following Nominating Committee: Drs. Harry J. Corper, Denver; Lloyd Arnold, Chicago, and R. G. Mills, Rochester, Minn.

Dr. Emil Bogen, Cincinnati, read a paper on "Drunkenness: A Quantitative Study of Acute Alcoholic Intoxication." Discussed by Drs. Harold L. Higgins, Cincinnati; M. W. Lyon, Jr., South Bend, Ind.; Roy G. Hoskins, Boston, and Emil Bogen, Cincinnati.

Dr. Frederick Eberson, San Francisco, read a paper on "Filtrable Toxins of the Tubercle Bacilli and the Production of Antitoxin Serum in the Sheep." Discussed by Drs. H. J. Corper, Denver; J. M. Anderson, Columbus, Ga., and Frederick Eberson, San Francisco.

Dr. H. J. Corper, Denver, read a paper on "Organic Tuberculosis in Man Analyzed from Postmortem and Experimental Data." No discussion.

Drs. William E. Cary and Lois A. Day, Chicago, presented a paper on "The Etiology of Measles." Discussed by Drs. William H. Park, New York; W. T. Harrison, Washington, D. C.; Frederick Eberson, San Francisco, and William E. Cary, Chicago.

Drs. John A. Kolmer and Malcolm J. Harkins, Philadelphia, presented a paper on "Further Investigations Bearing on Gye's Hypothesis of the Etiology of Malignant Tumors." Discussed by Dr. Francis Carter Wood, New York.

Dr. Jesse M. Bullowa and William H. Park, New York, presented a paper on "The Effect of Antipneumococcus Serum on the Leukocytes and on Bacteremia." Discussed by Drs. Alexander Lambert, New York; M. B. Rosenbluth, New York; R. A. Keilty, Danville, Pa.; Jesse M. Bullowa, New York, and William H. Park, New York.

Dr. L. W. Smith, Boston, read a paper on "The Pathology of Pertussis, with Especial Reference to Pertussis Bacillus Pneumonia." Discussed by Drs. Martha Wollstein, New York; William H. Park, New York; J. A. Kolmer, Philadelphia, and L. W. Smith, Boston.

Dr. William G. Exton, New York, read a paper on "A System for Optical Measurement and Study of Colloids and Other Dispersions." Discussed by Drs. J. A. Kolmer, Philadelphia, and Frank W. Hartman, Detroit.

Friday, May 20—Morning

The following officers were elected: chairman, Dr. H. R. Wahl, Kansas City, Mo.; vice chairman, Dr. M. H. Rees, Denver; secretary, Dr. J. J. Moore, Chicago; delegate, Dr. D. J. Davis, Chicago; alternate, Dr. J. J. Moore, Chicago.

Dr. Allan W. Rowe, Boston, read a paper on "Sugar Tolerance as an Aid to Diagnosis." Discussed by Drs. Charles H. Lawrence, Boston; H. J. John, Cleveland; Hector Mortimer, London; Roy G. Hoskins, Boston, and Allan W. Rowe, Boston.

Dr. Frederick M. Allen, Morristown, N. J., read a paper on "Physiologic and Clinical Properties of Blueberry Leaf

Extract in Relation to Carbohydrate Metabolism" Discussed by Drs J F Anderson, New Brunswick, N J, J A Morrell, New Brunswick, N. J; J W Sherrill, La Jolla, Calif and Frederick M Allen, Morristown, N J

Drs Walter Bauer and J C Aub, Boston, presented a paper on "Calcium Metabolism in Thyroid Disease" Discussed by Drs J H Means, Boston, and Walter Bauer Boston

Dr W H Howell, Baltimore, read a paper on "The Structure and Properties of Heparin" No discussion

Dr William C MacCarty, Rochester, Minn read a paper on "Chronic Splenomegalies" Discussed by Drs Ward J MacNeal, New York, and W C MacCarty Rochester, Minn

Dr Joseph C Bloodgood, Baltimore, read a paper on "The Danger of Incomplete Operations in Apparently Innocent Tumors and the Question of Tissue Examination and Diagnosis in Operating Rooms" Discussed by Dr William C MacCarty, Rochester, Minn

SECTION ON NERVOUS AND MENTAL DISEASES

WEDNESDAY, MAY 18—AFTERNOON

The meeting was called to order at 2 10 by the chairman, Dr William House, Portland, Ore

The secretary stated that Dr. Alfred Gordon, Philadelphia, who was to have presented a paper on Friday, would be unable to be present because of illness A communication from the Joint Committee of Public Health Education and the American Medical Association was then read by the secretary, who stated that part of their program was the preparation of bulletins dealing with the health of school children It was voted, on motion of Dr W A. Jones, Minneapolis, duly seconded, that the Section on Nervous and Mental Diseases consent to the appointment of a subcommittee by the chairman of the section to prepare a similar type of report to be published as a bulletin The chairman stated that the matter would be taken up with the councilors of the section and that the committee would be appointed at a later date

The secretary read communications proposing and endorsing the nomination of Prof G Mingazzini, Rome, for Honorary Fellowship in the Association, which were received from Drs William G Spiller, Philadelphia, Bernard Sachs, New York, Charles K Mills, Philadelphia, and Charles L Dana, New York Dr Walter J Freeman, Jr, Washington, D C, moved that the nomination of Professor Mingazzini for Honorary Fellowship in the American Medical Association be approved, and the motion was duly seconded and was carried unanimously

Dr William House, Portland, Ore, read the chairman's address, entitled "Some Socio Economic Problems in Neuropsychiatry"

Dr Groves B Smith, Detroit, read a paper on "The Psychoneuroses Their Problems in a General Hospital"

Dr Cornelius C Wholey, Pittsburgh, read a paper on "Mental Symptoms in Relation to General Medicine"

These two papers were discussed by Drs J M Bessey, Toledo, Edmund Jacobson, Chicago, George B Lake, Chicago, S P Goodhart, New York, W F Robie, Baldwinsville, Mass, Theodore Diller, Pittsburgh, Groves B Smith, Detroit, and Cornelius C Wholey, Pittsburgh

Dr Philip R Lehrman, New York, read a paper on "The Significance of Phantasies in Neurotic Behavior" Discussed by Drs William L Nelson, St Louis, and Philip R Lehrman, New York

Dr Joseph McIver, Philadelphia, read a paper on "The Juvenile Delinquent" Discussed by Drs Cornelius C Wholey, Pittsburgh, E J Emerick, Columbus, Ohio, William L Nelson, St Louis, and Joseph McIver, Philadelphia

Drs George W Hall, M M Kunde and F J Gerty, Chicago, presented a paper on "The Effect of Nonspecific Protein Therapy on the Blood and Cerebrospinal Fluid in General Paralysis" Discussed by Drs A L Skoog, Kansas City, Mo, T R Robie, Poughkeepsie, N Y, A B Magnus, Chicago, W F Lorenz, Madison, Wis, and George W Hall, Chicago

Dr L L Cazenavette, New Orleans, read a paper on "Mental Aspect of Leprosy" Discussed by Prof G H Monrad-Krohn of the University of Oslo, Norway, and L L Cazenavette, New Orleans

THURSDAY, MAY 19—AFTERNOON

Dr Charles H Frazier, Philadelphia, read a paper on "Fourteen Years Experience with Fractional Section of Sensory Root as the Major Operation in Trigeminal Neuralgia" Discussed by Drs William H Riley, Battle Creek Mich, William House, Portland, Ore, and Charles H Frazier, Philadelphia

Drs Howard W Fleming and Howard C Naffziger, San Francisco, presented a paper on "Physiology and Treatment of Transient Hemiplegia" Discussed by Drs Walter J Freeman, Jr, Washington, D C, I Leon Meyers, Los Angeles, Lewis J Pollock, Chicago, and Howard C Naffziger, San Francisco

Dr Walter J Freeman, Jr, Washington, D C, read a paper on "The Treatment of Encephalitis" Discussed by Drs George W Hall, Chicago, A L Skoog, Kansas City, Mo, W F Lorenz, Madison, Wis, E C Rosenow, Rochester Minn, Harry Alton Schachter, Newark, N J, L L Cazenavette, New Orleans, H S Hulbert, Chicago, William House, Portland, Ore, and Walter J Freeman, Jr, Washington, D C

Dr Irving J Sands, Brooklyn, read a paper on "The Acute Psychiatric Type of Epidemic Encephalitis" Discussed by Drs Walter J Freeman, Jr, Washington, D C, Theodore T Stone, Chicago, Harry Alton Schachter, Newark, N J, and Irving J Sands, Brooklyn

Dr Edward C Rosenow, Rochester, Minn, read a paper on "Further Studies on the Etiologic Relationship of Streptococci to Epidemic Encephalitis, Epidemic Hiccup, Spasmodic Torticollis and Chorea" Discussed by Drs A L Skoog, Kansas City, Mo, Walter J Freeman, Jr, Washington, D C, Peter Bassoe, Chicago, and Edward C Rosenow, Rochester, Minn

Dr Eugene S Kilgore, San Francisco, read a paper on "The Measurement of Cerebrospinal Fluid Pressure" Discussed by Drs J J Sampson, San Francisco, J B Ayer, Boston, and Eugene S Kilgore, San Francisco

The chairman appointed Drs Peter Bassoe, Chicago, and James B Ayer, Boston, to act with the Executive Committee and approve papers

FRIDAY, MAY 20—AFTERNOON

The following officers were elected chairman, Dr Lewis J Pollock, Chicago, vice chairman, Dr John L Eckel, Buffalo, secretary, Dr Walter J Freeman, Jr, Washington, D C, delegate, Dr Tom B Throckmorton, Des Moines, Iowa, alternate, Edward Delehanty, Denver

The delegate, Dr Tom B Throckmorton, Des Moines, Iowa, gave a report on the activities of the House of Delegates, which was accepted by the section

Drs Edward Livingston Hunt and James R Lisa, New York, presented a paper on "A Case of Frontal Lobe Tumor Simulating Epidemic Encephalitis, with Parkinson's Syndrome" Discussed by Drs Tom B Throckmorton, Des Moines, Iowa, Walter J Freeman, Jr, Washington, D C, A B Magnus, Chicago, William House, Portland, Ore, and James R Lisa, New York

Dr I Leon Meyers, Los Angeles, read a paper on "Cerebellar Phenomena in Lesions of the Temporal Lobe" Discussed by Drs S D Ingham, Los Angeles, A B Magnus, Chicago, James B Ayer, Boston, and I Leon Meyers, Los Angeles

Dr H H Drysdale, Cleveland, read a paper on "Acute Circumscribed Edema (Quincke)" Discussed by Drs Peter Bassoe, Chicago Theodore T Stone, Chicago, George W Hall, Chicago, Harry Alton Schachter, Newark, N J, and H H Drysdale, Cleveland

Dr Glenville Giddings, Atlanta, read a paper on "Friedreich's Ataxia in Nine Members of a Family" Discussed by Drs A L Skoog, Kansas City, Mo, and Glenville Giddings, Atlanta, Ga

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Wednesday, May 18—Afternoon

The meeting was called to order at 2:15 by the chairman, Dr. James Herbert Mitchell, Chicago.

Dr. Mitchell called attention to the scientific exhibit from the section and announced that Dr. Howard Fox had been awarded a certificate of merit. He then requested Dr. F. D. Weidman to report for the Committee on Exhibit, as Chairman.

Dr. Weidman reported that there had been considerable work in connection with arranging the exhibit and securing proper material, and that much of the credit for the success of the exhibit was due the local member of the committee, Dr. F. J. Eichenlaub, and Dr. Clark W. Finnerud. This was the third year the section had had a successful exhibit, and the committee wished an expression of opinion as to whether it should be continued, which would necessitate a contribution from the members of the section to defray the necessary expenses. The appointment of the chairman of the committee had always been made by the chairman of the section, and he felt all would agree that three years in this position was sufficient for any one.

Dr. William Allen Pusey moved that the exhibit be continued, and that the members of the section have it suggested to them that a contribution of $5 each for defraying the expenses of the exhibit would be acceptable.

Motion seconded by several and unanimously carried.

The chairman appointed Drs. Eichenlaub and Finnerud to collect this fund.

Dr. Howard Fox introduced the guest of the section, Dr. L. M. Pautrier of Strasbourg, and moved that Dr. Pautrier be recommended for Honorary Membership in the American Medical Association.

Motion seconded and unanimously carried.

Dr. William Allen Pusey requested the privilege of the floor, and said: Intimations have been given from various quarters that it might be desirable to invite the dermatologists of the world to come to the United States within the next two or three years for an international dermatologic congress. At the recent meeting of the American Dermatological Association a motion was passed that a committee of nine be appointed from that organization which should invite this section of the American Medical Association to appoint a committee of the same number, these two groups to form a joint committee of eighteen, the committee of nine to be selected by the chairman. This committee should elect its chairman, and then consider in the next year the question of holding an international dermatologic congress in the United States, probably in 1930, each of these committees to report back the conclusions of the joint committee to their respective associations at their meetings in 1928.

I move that the Section on Dermatology and Syphilology of the American Medical Association approve the appointment of a committee of nine to act with a similar committee of nine from the American Dermatological Association as a joint committee to consider an international dermatologic congress and report back in 1928.

I have asked the authorities of the American Medical Association if such action on the part of this section would be legal and have been informed that it would be entirely so.

Motion seconded.

Dr. Pusey's motion was then put to a vote and unanimously carried.

Dr. Harold N. Cole, Cleveland, presented the following report of the Committee on Furs, Hair Dyes and Cosmetics:

Your Committee on Furs, Hair Dyes and Cosmetics was appointed by the Chairman of this Section, at the request of the Board of Trustees, to cooperate with the Bureau of Legal Medicine and Legislation in efforts to carry out the resolution passed by the House of Delegates in May, 1924, as follows:

> Whereas, There has lately been an enormous increase in the use of cosmetics; and
>
> Whereas, Many of these cosmetics contain chemicals irritating and even dangerous to the human organism; and
>
> Whereas, The dye paraphenylendiamine has so often resulted in serious and even in dangerous irritation when employed in furs or on human hair; be it
>
> *Resolved*, That the Section on Dermatology and Syphilology, through its regularly appointed Executive Committee, urgently recommend to the favorable attention of the American Medical Association (1) that they foster legislation placing cosmetic preparations under the Food and Drugs Act, and especially requiring the placing of the names of all poisonous ingredients on the labels; (2) that they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics; (3) that they foster legislation to prohibit the use of paraphenylendiamine as a dye for hair and fur; and that the American Medical Association urge laws with criminal liability to enforce the recognition of these demands.

As the result of questionnaires sent out by your committee, of certain syndicated articles in the public press, of a request published in The Journal for reports of cases and of an article by the chairman of your committee, published in The Journal, Feb. 5, 1927, reports of 447 cases of injuries from hair dyes, dyed furs and cosmetics have been received. One hundred and forty-four injuries from dyed fur were reported by physicians and fifty-five by laymen, the latter being unsupported by medical evidence. Physicians reported 111 cases of injury from hair dyes, and 137 from cosmetics. In addition to these, physicians reported fifty-six cases of injuries from dyed clothing, thirty-four from hair tonics and twenty-seven from miscellaneous preparations, including deodorants, depilatories and toilet waters.

Your committee has corresponded with representatives of the Association of Dairy, Food and Drug Officials with respect to legislation proposed by that organization. A bill to regulate the sale of "cosmetics" was submitted to your committee by that association, through the Bureau of Legal Medicine and Legislation, and suggestions were offered by your committee. Some of these suggestions were accepted, some rejected, and the bill was approved by the association named at its annual convention held in Washington in October, 1926. In this bill the term "cosmetic" is defined to mean any substance or combination of substances represented, as for use externally or by direct application for embellishing, cleansing, perfuming, conditioning or otherwise improving the appearance of the skin, lips, eyes, hair, nails or teeth of the human body, whether with or without reference to the cure, mitigation or prevention of disease; except (*a*) substances prescribed or applied for any purpose named above by regularly licensed doctors of medicine and doctors of dental surgery for patients whom they are personally attending, and (*b*) substances and mixtures of substances bearing only names recognized in the U. S. Pharmacopeia, or in the National Formulary, and without claims for remedial value. Legislation based on this bill was introduced in 1927 in Massachusetts, Connecticut, Maine and New Hampshire but failed to pass.

For the purpose of increasing the interest of physicians in the pending movement, the Bureau of Investigation of the American Medical Association, at the suggestion of your committee and in cooperation with it, prepared an exhibit for the Washington session. It is suggested that the posters comprising this exhibit contain much of value and physicians are urged to study them.

Work has been done toward drafting legislation to carry out the resolution of the House of Delegates set forth above, but no final agreement has been reached concerning it.

We might add that this movement has also been recently endorsed by the American Dermatological Association through the appointment of this same committee from its members, Drs. Senear, Wile and Cole, and through the giving to this committee of power to act.

Respectfully submitted,

Francis E. Senear.
Udo J. Wile.
H. N. Cole, Chairman.

Whereas, The Committee on Cosmetics of the Section on Dermatology and Syphilology has conducted an investigation in regard to the evils resulting from the use of certain hair dyes, dyed furs and cosmetics; and

Whereas, Said Committee has been studying proposed legislation to curb such evils and is cooperating with a like committee from the American Dermatological Association; therefore, be it

Resolved, That the Section on Dermatology and Syphilology through its delegate does hereby submit this question to the House of Delegates for further action.

Francis E. Senear.
Udo J. Wile.
Harold N. Cole, Chairman.

Dr. William H. Guy, Pittsburgh, moved that the report be accepted and referred to the section delegate for presentation to the House of Delegates of the American Medical Association for action.

Motion seconded and unanimously carried.

Dr. James Herbert Mitchell, Chicago, read the chairman's address, entitled "Need for Research in the Treatment of Epidermophytoses."

Drs. Herman Sharlit and Walter James Highman, New York, presented a paper on "The Use of Tetraiodomethenamine in Flexible Collodion in the Treatment of Dermatophytosis."

Karl L. Karrenberg, Hamburg, Germany, read a paper on "Present State and Frequency of Epidermophytosis in Europe."

These two papers were discussed by Drs. Frederick D. Weidman, Philadelphia; T. Caspar Gilchrist, Baltimore; Harold N. Cole, Cleveland; Howard J. Parkhurst, Toledo, Ohio; Everett S. Lain, Oklahoma City; F. J. Eichenlaub, Washington, D. C.; Moses Scholtz, Los Angeles; Joseph Müller, Holden, Mass.; Walter James Highman, New York, and Herman Sharlit, New York.

Dr. L. M. Pautrier, Strasbourg, read a paper on "Paget's Disease of the Nipple not a Precancerous Stage but an Epidermoid Cancer Demanding Early Removal of the Breast." Discussed by Drs. Udo J. Wile, Ann Arbor, Mich.; Jay Frank Schamberg, Philadelphia, and T. Caspar Gilchrist, Baltimore.

Dr. Udo J. Wile, Ann Arbor, Mich., read a paper on "Further Studies on Bromide Intoxication." Discussed by Drs. George H. Belote, Ann Arbor, Mich.; William H. Guy, Pittsburgh; Harold N. Cole, Cleveland; Joseph J. Eller, New York; Paul E. Bechet, New York; Lester Hollander, Pittsburgh; Everett S. Lain, Oklahoma City, and Udo J. Wile, Ann Arbor, Mich.

Drs. Henry H. Whitehouse and Paul E. Bechet, New York, presented a paper on "The Treatment of Lupus Erythematosus, Lupus Vulgaris, the Tuberculids and Tuberculosis of the Skin with Gold Compounds." Discussed by Drs. Jay Frank Schamberg, Philadelphia; Howard Fox, New York; Jeffrey C. Michael, Houston, Texas; Joseph J. Eller, New York; Paul A. O'Leary, Rochester, Minn.; Adolph Rostenberg, New York; Jacob Edgar Fisher, Cleveland; Harry C. Saunders, New York, and Paul E. Bechet, New York.

Drs. Joseph V. Klauder and N. W. Winkelman, Philadelphia, presented a paper on "Pellagra Among Chronic Alcoholics." Discussed by Drs. Howard Fox, New York; Jay Frank Schamberg, Philadelphia; Everett S. Lain, Oklahoma City; Earl D. Crutchfield, Galveston, Texas; Joseph N. Roussel, New Orleans; J. B. Shelmire, Dallas, Texas, and J. V. Klauder, Philadelphia.

Dr. Francis Lowell Burnett, Boston, read a paper on "The Control of Health after Eczema and Psoriasis." Discussed by Drs. William H. Robey, Jr., Boston; Walter J. Highman, New York; Joseph J. Eller, New York, and Francis L. Burnett, Boston.

Thursday, May 19—Afternoon

Dr. Mitchell announced the appointment of the following as a committee from the Section on Dermatology and Syphilology to serve with a like committee from the American Dermatological Association to consider the feasibility of an international dermatologic congress: Dr. George Miller MacKee, New York; Dr. Fred Wise, New York; Dr. Howard Morrow, San Francisco; Dr. T. Caspar Gilchrist, Baltimore; Dr. Martin F. Engman, St. Louis; Dr. C. Morton Smith, Boston; Dr. John E. Lane, New Haven, Conn.; Dr. Harold N. Cole, Cleveland, and Dr. Frank W. Cregor, Indianapolis, and the first meeting of this committee to be held at 9 p. m. at the Mayflower Hotel.

The chairman further announced that through some error the collection that was authorized to defray the expenses of the Scientific Exhibit was not made on Wednesday, and appointed Drs. Jeffrey C. Michael and Howard J. Parkhurst to make the collection at this time.

Dr. Lester Hollander, Pittsburgh, read a paper on "Organic Luetin: Its Use in the Diagnosis of Syphilis." Discussed by Drs. John A. Kolmer, Philadelphia; John H. Stokes, Philadelphia, and Lester Hollander, Pittsburgh.

Dr. Paul A. O'Leary, Rochester, Minn., read a paper on "The Third Year Results with Malaria Therapy of Neurosyphilis." Discussed by Drs. Harold N. Cole, Cleveland; Udo J. Wile, Ann Arbor, Mich.; Watson William Eldridge, Jr., Washington, D. C.; J. E. Moore, Baltimore, and Paul A. O'Leary, Rochester, Minn.

Dr. George H. Belote, Ann Arbor, Mich., read a paper on "Pregnancy and Neurosyphilis." Discussed by Drs. J. E. Moore, Baltimore; John H. Stokes, Philadelphia, and George H. Belote, Ann Arbor, Mich.

Drs. John H. Stokes and Stanley O. Chambers, Philadelphia, presented a paper on "Clinical Observations on Bismuth Arsphenamine Sulphonate in the Treatment of Syphilis." Discussed by Drs. George W. Raiziss, Philadelphia; Paul A. O'Leary, Rochester, Minn.; Harold N. Cole, Cleveland; Joseph Muller, Holden, Mass., and John H. Stokes, Philadelphia.

Drs. Harold N. Cole, John A. Gammel, John A. Rauschkolb, Nora Schreiber and Torald Sollmann, Cleveland, presented a paper on "The Clinical Excretion of Mercury After Intramuscular Injections and Inunctions." Discussed by Drs. Frederick M. Jacob, Pittsburgh; F. J. Eichenlaub, Washington, D. C.; John H. Stokes, Philadelphia, and Harold N. Cole, Cleveland.

Dr. Carroll S. Wright, Philadelphia, read a paper on "Bismuth in the Treatment of Congenital Syphilis." Discussed by Drs. Joseph G. Hopkins, New York; Joseph J. Eller, New York; John H. Stokes, Philadelphia, and Carroll S. Wright, Philadelphia.

Dr. A. Benson Cannon, New York, read a paper on "The Prognosis of Congenital Syphilis." Discussed by Drs. Udo J. Wile, Ann Arbor, Mich.; Joseph G. Hopkins, New York; A. W. Nelson, Cincinnati, and A. Benson Cannon, New York.

Friday, May 20—Afternoon

The following officers were elected: chairman, Dr. Udo J. Wile, Ann Arbor, Mich.; vice chairman, Dr. Samuel E. Sweitzer, Minneapolis; secretary, Dr. William H. Guy, Pittsburgh; delegate, Dr. Howard Fox, New York; alternate, Dr. Otto H. Foerster, Milwaukee.

The chairman presented a letter from Dr. John Milton Dodson concerning the appointment of a standing Committee on Health Problems in Education, such committee to consist of three members, to meet with similar committees from other sections and the committee from the National Educational Association.

Dr. John E. Lane moved that the chairman be empowered to appoint such a committee.

Motion seconded and unanimously carried.

The chairman appointed the following to serve as this committee: Dr. Harry G. Irvine, Minneapolis, chairman; Dr. C. Guy Lane, Boston, and Dr. Otto H. Foerster, Milwaukee.

Dr. E. B. Tauber, Cincinnati, read a paper on "Cosmetics and Their Relation to Dermatology." Discussed by Drs. Harold N. Cole, Cleveland; William Allen Pusey, Chicago; George M. MacKee, New York; Lawrence K. McCafferty, New York; John E. Lane, New Haven, Conn.; C. Guy Lane, Boston; F. J. Eichenlaub, Washington, D. C.; T. Caspar Gilchrist, Baltimore; William H. Guy, Pittsburgh; C. F. Lehman, San Antonio, Texas; Jeffrey C. Michael, Houston, Texas; M. A. Killeen, Dubuque, Iowa; Paul E. Bechet, New York; James Herbert Mitchell, Chicago, and E. B. Tauber, Cincinnati.

Drs. J. J. Eller and Gustav Bucky, New York, presented a paper on "The 'Grenz' (Infra-Roentgen) Rays in Dermatology: Preliminary Report of Clinical and Biologic Observations." Discussed by Drs. George M. MacKee, New York; Edward R. Maloney, New York; Jeffrey C. Michael, Houston, Texas; Charles Lerner, New York; T. Caspar Gilchrist, Baltimore; William Allen Pusey, Chicago; William H. Guy, Pittsburgh; Gustav Bucky, New York, and J. J. Eller, New York.

Dr. Sigmund S. Greenbaum, Philadelphia, read a paper on "Blood Calcium in the Urticarias." Discussed by Drs. Udo J. Wile, Ann Arbor, Mich.; Paul A. O'Leary, Rochester, Minn.; Everett S. Lain, Oklahoma City; William Allen Pusey, Chicago, and Sigmund S. Greenbaum, Philadelphia.

Dr. Marvin D. Shie, Cleveland, read a paper on "A Study of Tattooing and Methods of Its Removal." Discussed by Drs. Harold N. Cole, Cleveland; William Allen Pusey, Chicago, and Marvin D. Shie, Cleveland.

Dr. Arthur M. Greenwood, Boston, read a paper on "A Study of the Skin in Five Hundred Cases of Diabetes." Discussed by Drs. C. Guy Lane, Boston, and Arthur M. Greenwood, Boston.

Dr. A. R. McFarland, Rochester, N. Y., read a paper on "The Use of Gentian Violet Preparations in Diseases of the Skin." Discussed by Drs. John H. Stokes, Philadelphia; Dudley C. Smith, University, Va.; Jeffrey C. Michael, Houston, Texas; Robert V. Hoffman, South Bend, Ind.; Moses Scholtz, Los Angeles; William J. MacDonald, Boston; C. F. Lehman, San Antonio, Texas; Harold N. Cole, Cleveland, and A. R. McFarland, Rochester, N. Y.

SECTION ON PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH

Wednesday, May 18—Morning

The meeting was called to order at 9 o'clock by the chairman, Dr. W. F. Draper, Washington, D. C.

Dr. William A. Sawyer, Rochester, N. Y., read a paper on "Relations of Industrial Medical Departments to Community Health Programs." Discussed by Drs. Lloyd Noland, Fairfield, Ala.; L. W. Corbett, Goldsboro, N. C.; F. L. Rector, Chicago; G. H. Wood, Detroit; Volney S. Cheney, Chicago; S. W. Welch, Montgomery, Ala.; Joseph S. Lawrence, Albany, N. Y., and William A. Sawyer, Rochester, N. Y.

Dr. W. F. Draper, Washington, D. C., read the chairman's address, entitled "The Unexplored Field of Preventive Medicine in Private Practice."

Drs. W. S. Leathers and Hugh J. Morgan, Nashville, Tenn., presented a paper on "A Study of Lead Poisoning in an Enameling Plant." Discussed by Drs. A. J. Lanza, New York; Haven Emerson, New York; Louis I. Harris, New York; E. F. Smith, Swissvale, Pa., and W. S. Leathers, Nashville, Tenn.

Dr. J. P. Leake, Washington, D. C., read a paper on "Lead Hazards." Discussed by Drs. Albert J. Chesley, St. Paul, and Haven Emerson, New York.

Dr. Henry Albert, Des Moines, read a paper on "Reasons for the Increasing Mortality from Heart Disease." Discussed by Drs. Haven Emerson, New York; L. F. Bishop, New York; Eugene L. Fisk, New York; M. M. Myers, Des Moines, and Henry Albert, Des Moines.

Thursday, May 19—Morning

Dr. Lloyd Arnold, Chicago, read a paper on "Host Susceptibility to Typhoid, Dysentery, Diarrhea and Food Poisoning." Discussed by Drs. Haven Emerson, New York; G. H. Wood, Detroit, and Lloyd Arnold, Chicago.

Drs. H. C. Stewart and William Litterer, Nashville, Tenn., presented a paper on "Dyersburg Epidemic." Discussed by Drs. Kenneth F. Maxcy, Washington, D. C.; Lloyd Arnold, Chicago; H. C. Stewart, Nashville, Tenn., and William Litterer, Nashville, Tenn.

Dr. D. G. Gill, Montgomery, Ala., read a paper on "The Epidemiology of Rural Typhoid." Discussed by Drs. S. W. Welch, Montgomery, Ala.; H. G. Grant, Richmond, Va.; R. H. Riley, Baltimore; Edward S. Godfrey, Jr., Albany, N. Y.; H. C. Stewart, Nashville, Tenn., and D. G. Gill, Montgomery, Ala.

Dr. W. G. Smillie, New York, read a paper on "The Future of County Health Work." Discussed by Drs. W. K. Sharp, Nashville, Tenn.; Lacy W. Corbett, Goldsboro, N. C.; L. L. Lumsden, Washington, D. C.; S. W. Welch, Montgomery, Ala.; John A. Ferrell, New York, and W. G. Smillie, New York.

Dr. John E. Monger, Columbus, Ohio, read a paper on "Progress and Status of Local Health Work in Ohio."

Dr. C. H. O'Laughinghouse, Raleigh, N. C., read a paper on "Critical Analysis of County Health Work."

These two papers were discussed by Drs. John A. Ferrell, New York; E. A. Hines, Seneca, S. C., and J. A. Hayne, Columbia, S. C.

Friday, May 20—Morning

The following officers were elected: chairman, Dr. Louis I. Harris, New York; vice chairman, Dr. Charles N. Leach, Montgomery, Ala.

Dr. Haven Emerson, New York, read a paper on "Seasonal Variation in Growth of Children." No discussion.

Dr. Henry D. Chadwick, Westfield, Mass., read a paper on "Observations in the Underweight Clinics in the Schools of Massachusetts." No discussion.

Dr. Frank L. Roberts, Trenton, Tenn., read a paper on "The Growth of Children That Are Below Average Weight." Discussed by Drs. Haven Emerson, New York; Henry D. Chadwick, Westfield, Mass.; Seneca Egbert, Philadelphia, and Frank L. Roberts Trenton, Tenn.

SECTION ON UROLOGY

Wednesday, May 18—Morning

The meeting was called to order at 9:10 by the chairman, Dr. George Gilbert Smith, Boston.

Dr. C. W. Collings, New York, read a paper on "Electrotome Excision of Prostatic Bar." Discussed by Drs. Alexander Randall, Philadelphia; E. L. Keyes, New York; George R Livermore, Memphis, Tenn.; A. E. Mackay, Portland, Ore.; Edwin Beer, New York; B. S. Barringer, New York, and C. W. Collings, New York.

The chairman appointed Dr. Robert V. Day, Los Angeles, to serve on the Executive Committee, in the place of Dr. John T. Geraghty, deceased.

Dr. A. L. Dean, Jr., New York, read a paper on "Ulceration of the Urinary Bladder as a Late Effect of Radium Applications to the Uterus." Discussed by Drs. E. L. Keyes, New York; John H. Cunningham, Boston; B. S. Barringer, New York; Clarence G. Bandler, New York; Edwin Beer, New York; George Gilbert Smith, Boston; Oscar L. Norsworthy, Houston, Texas; J. W. Barson, Joplin, Mo.; Herman L. Kretschmer, Chicago, and A. L. Dean, Jr., New York.

The following papers were read as a symposium on "The Treatment of Bladder Neoplasm":

Dr. E. L. Keyes, New York: "Principles Governing the Local Treatment of Bladder Carcinoma."

Drs. H. L. Kretschmer and K. E. Barber, Chicago: "Changes in the Bladder Following Resection: An Experimental Study."

Dr. B. S. Barringer, New York: "End-Results of Radium Removal of Carcinoma of the Bladder."

These three papers were discussed by Drs. Edwin Beer, New York; Waltman Walters, Rochester, Minn.; Gilbert J. Thomas, Minneapolis; George A. Wyeth, New York; B. C. Corbus, Chicago; D. N. Eisendrath, Chicago; Bransford Lewis, St. Louis; B. A. Thomas, Philadelphia; John H. Cunningham, Boston; Hermon C. Bumpus, Rochester, Minn.; E. L. Keyes, New York, and B. S. Barringer, New York.

Thursday, May 19—Morning

Dr. George Gilbert Smith, Boston, read the chairman's address, entitled "The Circulation as a Factor in Prostatic Surgery."

Dr. W. E. Lower, Cleveland, read a paper on "Complete Closure of the Bladder Following Prostatectomy." Discussed by Drs. A. L. Chute, Boston; Gilbert J. Thomas, Minneapolis; Bransford Lewis, St Louis; Henry J. Scherck, St. Louis; Alexander Randall, Philadelphia; William C. Fowler, Washington, D. C.; C. W. Collings, New York, and W. E. Lower, Cleveland.

Dr. J. H. Morrissey, New York, read a paper on "Seminal Vesicle and Prostatic Foci in Pelvic, Perirectal and Ischiorectal Suppuration in Males." Discussed by Drs. Leon Herman, Philadelphia; Jerome M. Lynch, New York; Bransford Lewis, St. Louis; D. N. Eisendrath, Chicago; Ralph W. Jackson, Fall River, Mass.; John H. Cunningham, Boston, and J. H. Morrissey, New York.

Dr. W. G. Shultz, Tucson, Ariz., read a paper on "Heliotherapy in Genito-Urinary Tuberculosis." Discussed by Drs. Gilbert J. Thomas, Minneapolis, and W. G. Shultz, Tucson, Ariz.

Dr. D. N. Eisendrath, Chicago, read a paper on "The Value of the Inlying Ureteral Catheter in the Treatment of Acute and Chronic Pyelonephritis."

Dr. B. C. Corbus, Chicago, read a paper on "Pyelonephritis and Its Relation to Nongonorrheal Urethritis."

Dr. G. W. Belcher, Cleveland, read a paper on "Renal Distortion."

These three papers were discussed by Drs. A. H. Crosbie, Boston; Henry J. Scherck, St. Louis; Theodore Baker, Pittsburgh; Edward L. Merritt, Fall River, Mass.; George R. Livermore, Memphis, Tenn.; Hermon C. Bumpus, Jr., Rochester, Minn.; Herman L. Kretschmer, Chicago; A. W. Nelson, Cincinnati; R. Arthur Hooe, Washington, D. C.; D. N. Eisendrath, Chicago, and B. C. Corbus, Chicago.

Friday, May 20—Morning

The following officers were elected: chairman, Dr. Frank Hinman, San Francisco; vice chairman, Dr. R. Arthur Hooe, Washington, D. C.; secretary, Dr. Hermon C. Bumpus, Jr., Rochester, Minn.; delegate, Dr. A. L. Chute, Boston; alternate, Dr. C. E. Burford, St. Louis.

Drs. B. H. Hager and T. B. Magath, Rochester, Minn., presented a paper on "Observations on the Formation of Vesical Calculi." Discussed by Drs. F. T. Lau, New York; R. Campbell Begg, Wellington, New Zealand, and B. H. Hager, Rochester, Minn.

Dr. O. S. Lowsley, New York, read a paper on "Relief of Congenital Incontinence of Urine by Operation." Discussed by Drs. R. E. Cumming, Detroit; D. K. Rose, St. Louis; R. Campbell Begg, Wellington, New Zealand, and Oswald S. Lowsley, New York.

Drs. W. T. Belfield and H. C. Rolnick, Chicago, presented a paper on "Observations on the Physiology and Therapy of the Seminal Duct."

Dr. M. F. Campbell, New York, read a paper on "Treatment of Epididymitis—Observation in Three Thousand Cases."

These two papers were discussed by Drs. J. F. McCarthy, New York; J. Sydney Ritter, New York; B. C. Corbus, Chicago; John F. Hogan, Baltimore; Francis R. Hagner, Washington, D. C.; George R. Livermore, Memphis, Tenn.; Robert H. Herbst, Chicago; H. C. Rolnick, Chicago, and M. F. Campbell, New York.

Dr. W. C. Quinby, Boston, read a paper on "Plastic Surgery of Renal Pelvis." Discussed by Drs. Thomas D. Moore, Memphis, Tenn.; D. N. Eisendrath, Chicago; Gilbert J. Thomas, Minneapolis; George Gilbert Smith, Boston; Robert H. Herbst, Chicago, and W. C. Quinby, Boston.

Drs. Robert V. Day, Los Angeles, and C. S. Vivian, Phoenix, Ariz., presented a paper on "Congenital Obstruction of the Posterior Urethra." Discussed by Drs. O. S. Lowsley, New York; Henry J. Scherck, St. Louis; Francis R. Hagner, Washington, D. C.; J. F. McCarthy, New York, and Robert V. Day, Los Angeles.

SECTION ON ORTHOPEDIC SURGERY

Wednesday, May 18—Morning

The meeting was called to order at 9:20 by the chairman, Dr. J. P. Lord, Omaha.

The following papers were read as a symposium on "Fractures":

Dr. Charles L. Scudder, Boston: "Indications for Operative Treatment."

Mr. Walter Rowley Bristow, London: "Influence of War Surgery on Treatment of Fractures in Great Britain."

Dr. Joseph Blake, New York: "Traction and Suspension."

Dr. Kellogg Speed, Chicago: "Fracture of the Shaft of the Femur: Diagnosis and Treatment."

These four papers were discussed by Drs. William O'Neill Sherman, Pittsburgh; W. L. Estes, Bethlehem, Pa.; Willis C. Campbell, Memphis, Tenn.; William Darrach, New York; Edwin W. Ryerson, Chicago; W. S. Baer, Baltimore; Joseph Blake, New York, and Kellogg Speed, Chicago.

Thursday, May 19—Morning

Dr. J. Archer O'Reilly, St. Louis, read a paper on "Abnormalities of the Lower Back." Discussed by Drs. R. E. Humphries, New York; Frank R. Ober, Boston; Samuel Kleinberg, New York; C. A. Stone, St. Louis; E. S. Johnson, Boston, and J. Archer O'Reilly, St. Louis.

Dr. George E. Bennett, Baltimore, read a paper on "Unusual Cases of Tumor of the Spinal Cord." Discussed by Drs. Edwin W. Ryerson, Chicago; A. W. Adson, Rochester, Minn.; R. V. Funston, Detroit; J. W. Sever, Boston, and George E. Bennett, Baltimore.

Dr. Edwin W. Ryerson, Chicago, read a paper on "Laminectomy: An Analysis of Operations Performed for Various Lesions." Discussed by Drs. D. B. Phemister, Chicago; George E. Bennett, Baltimore; A. W. Adson, Rochester, Minn.; Harry E. Mock, Chicago; H. W. Orr, Lincoln, Neb.; A. L. Lockwood, Toronto and Edwin W. Ryerson, Chicago.

Dr. J. P. Lord, Omaha, read the chairman's address, entitled "Factors in the Advancement of Orthopedic Surgery."

Dr. Frank R. Ober, Boston, read a paper on "Scoliosis." Discussed by Drs. Albert H. Freiberg, Cincinnati; F. J. Gaenslen, Milwaukee; George E. Bennett, Baltimore; Samuel Kleinberg, New York, and Frank R. Ober, Boston.

Dr. Armitage Whitman, New York, read a paper on "A Variation in the Operative Treatment for Structural Scoliosis." Discussed by Drs. H. W. Orr, Lincoln, Neb.; Samuel Kleinberg, New York; Edwin W. Ryerson, Chicago; Willis C. Campbell, Memphis, Tenn., and Armitage Whitman, New York.

Dr. F. J. Gaenslen, Milwaukee, read a paper on "Sacro-Iliac Arthrodesis: Author's Technic, Indication and Late Results." Discussed by Drs. Armitage Whitman, New York; R. V. Funston, Detroit and F. J. Gaenslen, Milwaukee.

Friday, May 20—Morning

The following officers were elected: chairman, Dr. James Archer O'Reilly, St. Louis; vice chairman, Dr. Walter G. Stern, Cleveland; secretary, Dr. H. W. Meyerding, Rochester, Minn.; delegate, Dr. F. J. Gaenslen, Milwaukee; alternate, Dr. Frank R. Ober, Boston.

Three resolutions were adopted by the section: 1. A resolution of appreciation to Surgeon General Ireland, Lieutenant Colonel Keller and Major Metane for their cooperation and assistance in the preparation of the fracture exhibit, with instructions to the secretary to write these gentlemen to that effect. 2. A resolution of thanks to the members of the Fracture Committee and the Advisory Committee for their untiring efforts and success in presenting a most instructive fracture exhibit and a most interesting program, with instructions to the secretary to convey these sentiments to the members of these committees. 3. A resolution expressing the desire of the section that the Fracture Committee be continued, in order to complete the work which it has so efficiently begun.

Dr. W. B. Carrell, Dallas, Texas, read a paper on "Recurring Dislocation of the Shoulder." Discussed by Drs. F. J. Cotton, Boston; Fred H. Albee, New York; T. Turner Thomas, Philadelphia; Edwin W. Ryerson, Chicago; J. W. Sever, Boston; J. T. Rugh, Philadelphia, and W. B. Carrell, Dallas, Texas.

Dr. B. A. Thomas, Philadelphia, read a paper on "Gonorrheal Arthritis." Discussed by Drs. D. P. Willard, Philadelphia; Albert H. Freiberg, Cincinnati; Richard Kovacs, New York, and B. A. Thomas, Philadelphia.

Dr. Albert H. Freiberg, Cincinnati, read a paper on "The Relationship of Physical Therapy to Orthopedic Surgery." Discussed by Drs. J. W. Sever, Boston, H. W. Orr, Lincoln, Neb.; D. P. Willard, Philadelphia; H. D. Corbusier, Plainfield, N. J.; Richard Kovacs, New York; Roland Hammond, Providence, R. I., and Albert H. Freiberg, Cincinnati.

Dr. Arthur B. Gill, Philadelphia, read a paper on "Fusion Operations on the Foot." Discussed by Drs. Fred H. Albee, New York; J. O. Wallace, Pittsburgh; Willis C. Campbell, Memphis, Tenn.; Frank R. Ober, Boston, and Arthur B. Gill, Philadelphia.

Dr. R. Plato Schwartz, Rochester, N. Y., read a paper on "A Method for Making Graphic Records of Normal and Pathologic Gait, with Description of a New Apparatus." Discussed by Drs. H. W. Orr, Lincoln, Neb.; E. G. Brackett, Boston; Charlton Wallace, New York; Albert H. Freiberg, Cincinnati; and R. Plato Schwartz, Rochester, N. Y.

SECTION ON GASTRO-ENTEROLOGY AND PROCTOLOGY

Wednesday, May 18—Afternoon

The meeting was called to order at 2 o'clock by the chairman, Dr Jerome M Lynch, New York

Dr M I Bierman, Washington, D C, read a paper on 'Intestinal Stasis Functional Types" Discussed by Drs Walter C Alvarez, Rochester, Minn , Russell S Boles, Philadelphia, G S Hanes, Louisville, Ky , Zachary Sagal, New York, E. G Martin, Detroit, and M I Bierman, Washington, D C

Dr A F R Andresen, Brooklyn, read a paper on 'Treatment of Gastric Hemorrhage" Discussed by Drs J Russell Verbrycke, Jr, Washington, D C , Donald C Balfour, Rochester, Minn , Frank Smithies, Chicago, and A F R Andresen, Brooklyn

Dr Max Einhorn, New York read a paper on "Apparent Hour-Glass Stomach, Cured by Medical Means" Discussed by Drs B B Crohn, New York I R Jankelson, Boston, J C Bloodgood, Baltimore, D C Balfour Rochester, Minn , I O Palefski New York, and Max Einhorn, New York

Dr Louis J Hirschman, Detroit read a paper on 'Enemas—Some Uses and Abuses ' Discussed by Drs G S Hanes, Louisville Ky , D C McKenney, Buffalo, and Louis J. Hirschman, Detroit

Dr W M James, Panama, R P, read a paper on 'Intestinal Amebiasis in Man, with Especial Reference to Its Diagnosis ' Discussed by Drs Frank Smithies, Chicago, Kenneth M Lynch, Charleston, S C, and W M James, Panama, R P

Drs Alexius McGlannan and Standish McCleary, Baltimore, presented a paper on 'Carcinoid Tumors of Small Intestine Report of a Case Complicated by Intussusception in an Adult '

Dr Frank C Yeomans, New York, read a paper on "Carcinomatous Degeneration of Rectal Adenomas Report of Seven Cases"

These two papers were discussed by Drs J P Pratt, Detroit, Joseph C Bloodgood, Baltimore, Curtice Rosser, Dallas, Texas, Alois B Graham, Indianapolis, Alexius McGlannan, Baltimore, and Frank C. Yeomans, New York

Thursday, May 19—Afternoon

Dr Jerome M Lynch, New York, read the chairman's address, entitled "A New Operation for Prolapse of the Rectum"

Dr Alois B Graham, Indianapolis, read a paper on "Anorectal Diseases Present Status of Diagnosis and Treatment" Discussed by Drs Frank C Yeomans, New York, E G Martin, Detroit, John A Lichty, Clifton Springs, N Y , Arthur A Landsman, New York, E H Terrell, Richmond, Va , and Alois B Graham, Indianapolis

Drs Burrill B Crohn and Herman Rosenberg, New York, presented a paper on Nonspecific Ulcerative Colitis" Discussed by Drs Moses Paulson, Baltimore, Anthony Bassler, New York, Arthur A Landsman, New York, F B Turck, New York, and Burrill B Crohn, New York

Dr C L Hartsock, Cleveland, read a paper on "Abdominal Migraine" Discussed by Drs John A Lichty, Clifton Springs, N Y , A F R Andresen, Brooklyn, Zachary Sagal, New York, and C L Hartsock, Cleveland

Dr A C Ivy, Chicago, read a paper on "Further Studies on the Physiology of External Pancreatic Secretion" Discussed by Drs H L Bockus, Philadelphia, Anthony Bassler, New York, Lloyd Arnold, Chicago, and A C Ivy, Chicago

Dr William H Stewart, New York, read a paper on "Cholecystography ' Discussed by Drs Maurice Feldman, Baltimore, Bernard Fantus, Chicago, I O Palefski, New York, George B Eusterman, Rochester, Minn , and William H Stewart, New York

Dr V E S Counseller, Rochester, Minn , read a paper on The Effects of Obstructive Lesions of the Common Duct on the Liver" Discussed by Drs Alexius McGlannan, Baltimore, C S McVicar, Rochester, Minn , and V E S. Counseller, Rochester, Minn

Friday, May 20—Afternoon

The following officers were elected chairman, Dr Joseph Sailer, Philadelphia, vice chairman, Dr Alois B Graham, Indianapolis, secretary, Dr George B Eusterman, Rochester, Minn

Drs Anthony Bassler and J Raymond Lutz, New York, presented a paper on "Deductions from One Hundred Consecutive Testings of Pancreatic Function" Discussed by Drs Harry Shay, Philadelphia, Frank Smithies, Chicago, and Anthony Bassler, New York

Drs C S McVicar and William T Fitts, Rochester, Minn , presented a paper on 'Clinical Aspects of Jaundice" Discussed by Drs A M Snell, Rochester, Minn , and C S. McVicar, Rochester, Minn

Drs H L Bockus and Joseph Bank, Philadelphia, presented a paper on Upper Gastro-Intestinal Diseases Associated with Syphilis" Discussed by Drs George B Eusterman, Rochester, Minn ; Frank Smithies, Chicago, Walter C. Alvarez, Rochester, Minn , and H L Bockus, Philadelphia

Dr Irving Gray, Brooklyn, read a paper on "Duodenal Ulcer Symptom Complex in Patients Not Having Ulcer" Discussed by Drs Julius Friedenwald, Baltimore, A F R Andresen, Brooklyn, C R Jones, Pittsburgh, J J Gilbride, Philadelphia, Frank Smithies, Chicago, and Irving Gray, Brooklyn

Dr Moses Paulson, Baltimore, read a paper on "Experimental Studies on Chronic Ulcerative Colitis with Reference to a Bacterial Etiology" Discussed by Drs F R Brown, Baltimore, Frank Smithies, Chicago, A F R Andresen, Brooklyn, Walter C Alvarez, Rochester, Minn , and Moses Paulson, Baltimore

Drs J P Pratt and L S Fallis, Detroit, presented a paper on Volvulus of Cecum and Ascending Colon Report of Three Cases ' Discussed by Drs V. E. S Counseller, Rochester, Minn , and J. P. Pratt, Detroit

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SECTION ON RADIOLOGY

Wednesday, May 18—Afternoon

The meeting was called to order at 2 o'clock by the chairman, Dr Albert Soiland, Los Angeles

The name of Dr A Joseph Riviere, Paris, which was presented by President Wendell C Phillips and duly seconded, was placed in nomination for Honorary Fellowship by Dr J T Case, Battle Creek, Mich The nomination was seconded by Dr I S Trostler, Chicago, and by unanimous vote Dr Riviere was elected to Honorary Fellowship

Dr. Albert Soiland, Los Angeles, read the chairman's address, entitled 'Radiology"

Drs H B Thomas, E W Hirsch and Edward S Blaine, Chicago, presented a paper on Unusual Bone Changes Caused by a Small Primary Bronchiogenic Carcinoma" Discussed by Drs A L Gray, Richmond, Va , Leon T Lewald, New York, H K Pancoast, Philadelphia, and Edward S Blaine, Chicago

Drs Irving S Ingber and Frederick H Rodenbaugh, San Francisco, presented a paper on 'Diverticula of the Small Intestine. Incidence and Symptomatology, with Illustrative Case Histories" Discussed by Drs Lewis G Cole, New York, and Frederick H Rodenbaugh, San Francisco

Dr A B Moore, Rochester, Minn , read a paper on "Benign Tumors of the Stomach from the Roentgenologic Point of View" Discussed by Drs George W Holmes, Boston, H K Pancoast, Philadelphia, F B Stephenson, Denver, and A. B Moore, Rochester, Minn

Dr Maximilian J Hubeny, Chicago, read a paper on "Pain. Its Value, Its Elusiveness" No discussion

Drs F E Simpson and R E Flesher, Chicago, presented a paper on "Radium in the Treatment of Vascular Nevi" Discussed by Drs George W Grier, Pittsburgh, W H Schmidt, Philadelphia, and R E Flesher, Chicago

Dr George M MacKee, New York, read a paper on "Summary of Roentgen-Ray Therapy in Dermatology" Discussed by Drs George E Pfahler, Philadelphia, I S Trostler, Chicago, Bertram C Cushway, Chicago, and George M MacKee, New York

Thursday, May 19—Afternoon

Dr Francis Carter Wood, New York, read a paper on "Experimental Investigation of the Therapeutic Value of a

Combination of Colloidal Lead and Roentgen Rays in the Treatment of Cancer." Discussed by Drs. J. Shelton Horsley, Richmond, Va.; Henry J. Ullmann, Santa Barbara, Calif.; Adolph Bonner, Brooklyn, and Francis Carter Wood, New York.

Dr. Henry J. Ullmann, Santa Barbara, Calif, read a paper on "The Combination of Colloidal Lead and Radiation in Cancer Therapy." Discussed by Drs. O. N. Meland, Los Angeles; Francis Carter Wood, New York, and Henry J. Ullmann, Santa Barbara, Calif.

Dr. Douglas Quick, New York, read a paper on "Radium in Massive Dosages in the Therapy of Cancer." Discussed by Drs. Curtis F. Burnam, Baltimore; H. H. Bowing, Rochester, Minn., and Douglas Quick, New York.

Drs. G. E. Pfahler and B. P. Widmann, Philadelphia, presented a paper on "The Value of Injections of Dextrose During Radiation Treatment of Malignant Disease." Discussed by Drs. Howard P. Doub, Detroit; James W. Hunter, Jr., Norfolk, Va.; Truman Abbe, Washington, D. C., and B. P. Widmann, Philadelphia.

Dr. U. V. Portmann, Cleveland, read a paper on "Radiation Therapy in the Treatment of Carcinoma of the Thyroid Gland." Discussed by Drs. Allen Graham, Cleveland; H. H. Bowing, Rochester, Minn., and U. V. Portmann, Cleveland.

Dr. Arthur W. Erskine, Cedar Rapids, Iowa, read a paper on "The Management of Cancer of the Breast." Discussed by Drs. A. W. Crane, Kalamazoo, Mich., and B. H. Orndoff, Chicago.

Friday, May 20—Afternoon

The following officers were elected: chairman, Dr. E. H. Skinner, Kansas City, Mo.; vice chairman, Dr. Charles A. Waters, Baltimore.

It was moved by Dr. P. M. Hickey, Ann Arbor, Mich., seconded and carried, that a committee of three be appointed by the Executive Committee to cooperate with the director of the Scientific Exhibit in connection with radiologic exhibits.

Dr. A. C. Christy, Washington, D. C., presented a resolution that the chairman appoint three members to serve on the committee to study the legislative needs for safeguarding the practice of radiology in the various states, and to report results and recommendations at the next meeting. Motion for adoption was made by Dr. Christy, seconded and carried.

The chairman appointed a committee consisting of Drs. Thomas A. Groover, Washington, D. C.; E. L. Jenkinson, Chicago, and W. E. Chamberlain, San Francisco.

Drs. A. S. Warthin and E. A. Pohle, Ann Arbor, Mich., presented a paper on "The Effect of Roentgen Rays on the Heart." Discussed by Drs. B. H. Orndoff, Chicago; Eugene Kilgore, San Francisco, and E. A. Pohle, Ann Arbor, Mich.

Dr. P. M. Hickey, Ann Arbor, Mich., read a paper on "Standards in Roentgenology." Discussed by Drs. Willis F. Manges, Philadelphia; Henry Kennon Dunham, Cincinnati; C. S. Gorsline, Battle Creek, Mich., and P. M. Hickey, Ann Arbor, Mich.

Dr. F. S. Bissell, Minneapolis, read a paper on "The Metamorphosis of Tuberculous Lung Changes as Observed in Serial Roentgenograms." Discussed by Drs. Willis F. Manges, Philadelphia; Frank B. Stephenson, Denver; Henry Kennon Dunham, Cincinnati, H. K. Pancoast, Philadelphia, and F. S. Bissell, Minneapolis.

Dr. V. V. Norton, Cincinnati, read a paper on "Basal Tuberculous Lesions." Discussed by Drs. H. K. Pancoast, Philadelphia; Henry Kennon Dunham, Cincinnati, and V. V. Norton, Cincinnati.

Drs. Samuel Brown and H. B. Weiss, Cincinnati, presented a paper on "Lateral Views of the Thorax." Discussed by Drs. W. A. Evans, Detroit; H. K. Pancoast, Philadelphia; Henry Kennon Dunham, Cincinnati, and Samuel Brown, Cincinnati.

Dr. William H. Schmidt, Philadelphia, read a paper on "Cancer of the Tongue." Discussed by Drs. Barnet Joseph, New York; James F. Percy, Los Angeles, and William H. Schmidt, Philadelphia.

Dr. Isaac Levin, New York, read a paper on "Intraperitoneal Insertion of Capillary Tubes of Radon in Cancer of the Abdomen and Pelvic Cavities." Discussed by Drs. Barnet Joseph, New York, and Isaac Levin, New York.

Medical News

(Physicians will confer a favor by sending for this department items of news of more or less general interest: such as relate to society activities, new hospitals, education, public health, etc.)

ALASKA

Hospital News—Airplanes Transport Patients.—Instances have occurred in Alaska in which patients have been transported hundreds of miles by airplanes to hospitals or other medical aid. The Anchorage Base Hospital, maintained by the Alaska Railroad under the U. S. Department of the Interior, with a capacity of thirty-four beds, serves a large territory and admits other patients in addition to the railway employees. Dr. Rex F. Swartz is now chief of staff of the hospital, and the other railroad surgeons at the hospital are Drs. Joseph H. Romig, Fairbanks; John A. Baughman, Seward, and Reilly J. Alcorn, Anchorage. Our correspondent writes also that Dr. Arthur D. Haverstock, captain, Medical Corps, U. S. Army, has been ordered to the Letterman General Hospital, San Francisco; Dr. Haverstock was formerly chief medical officer at the army post at Anchorage.

CALIFORNIA

Health at San Diego.—Telegraphic reports to the U. S. Department of Commerce from sixty-six cities with a total population of about 30 million, for the week ending May 21, indicate that the highest mortality rate (23.1) was for San Diego, and that the rate for the group of cities was 12.4. The mortality rate for San Diego for the corresponding week last year was 18.5, and for the group of cities, 13.3.

Private Kibbe Discharged.—Private Jack A. Kibbe of the Thirtieth Infantry, U. S. Army, one of the soldiers who volunteered to be inoculated with dengue fever in the Philippine Islands, so that medical officers might study the disease, was discharged, June 2, at San Francisco by reason of the expiration of his term of enlistment. He will go to live with his sister at Enfield, Conn., his parents having died during his enlistment. Private Kibbe enlisted from Copper Hill, Tenn. (The Journal, April 18, 1925, p. 1165).

"Spirit Doctor" Treats Virulent Smallpox.—A Mexican "spirit doctor" in Los Angeles County in April treated a case of virulent smallpox, and the patient died. The "doctor" who did not report the case was prosecuted by the county health department; he was also convicted of violating the medical practice act, and was sentenced to serve 180 days in jail. The sentence was suspended for two years. The state board of health bulletin says that a Mexican child who was recently brought into Los Angeles County developed smallpox, and that these cases indicate that virulent smallpox is being brought into the United States from Mexico.

CONNECTICUT

Clinical Congress of State Society.—A preliminary announcement of the Clinical Congress of the Connecticut State Medical Society to be held at Yale University, September 20-22, shows that definite arrangements have been made for seventeen addresses and demonstrations by the following physicians: Drs. James P. Leake, U. S. Public Health Service, Washington, D. C.; Frederick M. Allen, Morristown, N. J.; Francis M. Rackemann, Boston; Fred Wise, New York; Charles G. Heyd, New York; Thomas McCrae, Philadelphia; Leroy M. S. Miner, Boston; John F. Erdmann, New York; John J. Moorhead, New York; Bronson Crothers, Boston; John Whitridge Williams, Baltimore; Ross H. Skillern, Philadelphia; Frank R. Ober, Boston; Prof. Frederick B. Flinn, Ph.D., department of physiology, Columbia University, College of Physicians and Surgeons; Drs. George E. de Schweinitz, Philadelphia; Eugene H. Pool, New York, and Morris Fishbein, Chicago. Yale has assigned one of the college dormitories for the use of the members of the congress and rooms can be had for $2 per night; if hotel rooms are preferred, they may be had at the usual rates. There will be garage and parking space for the use of the members at a convenient location, and twenty-four hour telephone service throughout the congress, an abstract of the papers will be presented to each member in a bound volume. The fee will be $5, including admission to all sessions. Inquiries should be addressed to Dr. Creighton Barker, 129 Whitney Avenue, New Haven.

DISTRICT OF COLUMBIA

Carnival Brings Smallpox to Capital.—The first outbreak of smallpox this year in Washington was reported, May 19; five cases were discovered, all but one occurring in negroes. The health department considered the source of the outbreak to be among members of a carnival company which visited the city. The health department notified the Pennsylvania health authorities of the situation as the show went to that state; word came that one performer was in a hospital in New York with smallpox.

Dinner to Dr. White.—The staff of St. Elizabeth's Hospital gave a dinner in honor of Dr. William A. White, the superintendent, May 13, as an expression of mutual good will and friendliness between the superintendent and staff, and of their confidence in and loyalty to the hospital and its management. St. Elizabeths Hospital has been the subject of various investigations by Congress recently; the dinner was an expression of the relief afforded by the end of the investigations and their favorable results.

FLORIDA

Bills Introduced.—Senate bill 87 would regulate the practice of podiatry, providing for the examination and licensing of podiatrists. Senate bill 614 is an act to provide for sterilization of inmates of state institutions in certain cases. House bill 1056 would provide for the creation of the position of state supervisor of physical and health education.

Personal.—Dr. Joseph N. Fogarty, St. Augustine, has resigned as chief surgeon of the Florida East Coast Railway.——Dr. Harry L. Putnam addressed the Pinellas County Medical Society, St. Petersburg, recently on "Arteriosclerosis," and Dr. Martin H. Stuart, on "Early Treatment of Otitis Media and Mastoiditis."——Dr. John S. P. Turberville, Century, has been elected president of the Florida Railway Surgeons Association.——During the absence in Europe of Dr. Tom A. Williams, Dr. Isadore H. Agos will direct the Child Guidance Clinic at Miami.

IDAHO

Society News.—The Southwest Idaho Medical Association met at Boise, April 1; clinics were held at St. Luke's and St. Alphonsus hospitals, and in the afternoon Dr. Frederick Epplen, Spokane, spoke on "New Views on Nephritis"; Drs. Mitchell Langworthy, Spokane, "Industrial Fractures and Dislocations," and Alphonso N. Codd, Spokane, "Bronchoscopy."

ILLINOIS

Bill Introduced.—House bill 610 establishes a code of standards for schools teaching drugless sciences.

Two Journals Consolidate.—The Chicago *Medical Recorder,* founded forty-nine years ago, and the *Radiological Review,* founded about three years ago, have consolidated, and henceforth will be published by the Radiological Review Publishing Company, 81 East Madison Street, Chicago, under the editorship of Dr. Harold Swanberg, Quincy, and an editorial board of physicians.

State Department Adopts the Kahn Test.—After June 1, 1927, the laboratory of the Illinois Department of Public Health will use the Kahn test as the official serologic test for syphilis in place of the Wassermann test. The Wassermann test will be made on the special request of physicians when conditions seem to warrant additional information. This action was taken on recommendation of the advisory board after a comprehensive study of thousands of tests.

Liquor Licenses Revoked.—The district prohibition administrator, with headquarters in Chicago, recently revoked the liquor licenses of the following for violation of the prohibition law and regulations:

Dr. William H. Finn, Chicago.
Dr. Chester W. Fouser, Cicero.
Dr. James T. Groot, Chicago.
Dr. Robert R. Mustell, Chicago.
Dr. Samuel T. Sealy, Mounds.
Dr. Robert G. Smith, Waukegan.
Dr. Marcus G. Wolk, Calumet City.

State Medical Election.—At the seventy-seventh annual meeting of the state medical society, Moline, May 31-June 2, Dr. G. Henry Mundt, Chicago, became president of the society; John E. Tuite, Rockford, president elect; Drs. Arthur T. Leipold, Moline, and Arthur G. Bosler, Chicago, vice presidents; Dr. Harold M. Camp, Monmouth, secretary, and Dr. A. J. Markley, Belvidere, treasurer. Chicago was selected for the 1928 meeting. The oration in medicine was given by Dr. Elliott P. Joslin, Boston, and the oration in surgery by Dr. Charles H. Mayo, Rochester, Minn. Dr. Robert M. Schauffler, Kansas City, addressed the opening meeting, to which the public was invited, on "Why You Need the Physician When You Are Not Sick." At the president's banquet, thirteen of the nineteen living past presidents were present. Many of the physicians in attendance at this meeting availed themselves of the opportunity to undergo a physical examination which was conducted by Drs. James H. Hutton and Hubbard P. Saunders, Chicago.

IOWA

Students Protest Against Resignations.—About 180 upper classmen of the State University of Iowa College of Medicine, Iowa City, adopted resolutions, May 31, protesting, it is reported, against the acceptance by the state board of education of the resignations of several faculty members.

State Medical Election.—At the recent medical meeting of the Iowa State Medical Society, Council Bluffs, Dr. Michael J. Kenefick, Algona, was installed as president; Dr. Thomas E. McManus, Waterloo, was made president-elect, and Dr. Tom B. Throckmorton, Des Moines, secretary, reelected.

Society News.—Dr. Donald MacRae, Jr., Council Bluffs, was recently elected president of the newly organized Iowa Surgical Clinical Society.——The Iowa Public Health Association has elected Dr. Herbert R. Sugg, Clinton, president; Dr. Reu L. Barnett, Atlantic, vice president, and Dr. Harley L. Sayler, Des Moines, secretary-treasurer.

Veterans' Bureau Needs a Pathologist.—The U. S. Veterans Bureau Hospital at Knoxville needs a pathologist, and applications for the position are being received by the U. S. Civil Service Commission, Washington, D. C. The entrance salary is $3,800, advancement depending on efficiency and the occurrence of vacancies in higher positions; $6,000 is the highest salary paid to senior medical officers. Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

MAINE

Personal.—Dr. Henry L. Johnson of Westerly, R. I., was appointed college physician of Bowdoin College at a meeting of the governing board, April 15. Dr. Johnson will succeed the late Dr. Frank N. Whittier.

State Medical Meeting.—The annual meeting of the Maine Medical Association will be held at Portland, June 13-15, under the presidency of Dr. Lester P. Gerrish, Lisbon Falls; there will be a symposium on metabolic diseases by Drs. Frederick M. Allen, New York, Garfield G. Duncan, Philadelphia, and Elton R. Blaisdell, Portland, Ore. Dr. L. Rock Sleyster, Wauwatosa, Wis., a trustee of the American Medical Association, will give the address at the banquet, Tuesday evening; there will be dancing. There will be a cardiac clinic at the Maine General Hospital, Wednesday morning, and among others, Dr. Daniel F. Jones, Boston, will read a paper on "Carcinoma of the Rectum." Dr. Conrad Berens, Jr., New York, will address the eye and ear section, June 25, in Portland.

MASSACHUSETTS

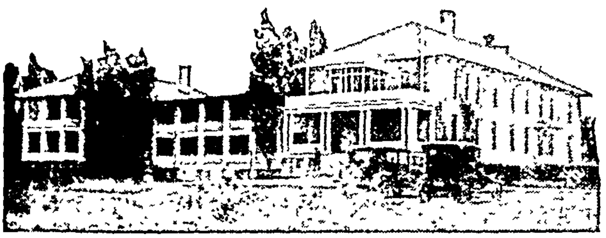
Medical Student Sentenced.—On complaint of the department of public safety, John C. Del Toro, a student in the College of Physicians and Surgeons, Boston, was brought into court recently where, it is reported, testimony indicated that he had been practicing medicine without a license. Del Toro is said to have been sentenced to three months in jail.

Another Physicians' Art Exhibit.—Arrangements are being made for an exhibition of works of art by physicians of New England. The exhibition is expected to open about November 1 at the Boston Medical Library. A number of physicians have already indicated their desire to participate. Any member of the profession in New England who is willing to loan works of art made by himself for the exhibition is invited to do so. Further particulars can be had on request to the Boston Medical Library, 8 The Fenway, Boston, Mass., in care of Dr. George H. Monks, for the committee.

Society News.—At the annual meeting of the Essex South District Medical Society, Gloucester, May 10, Dr. Edward B. Hallet, Gloucester, was elected president; Mr. Arthur W. Gilbert, Belmont, addressed this meeting on "Experiences in Europe with the League of Nations," illustrated. Mr. Gilbert was one of the three Americans appointed by the President to attend the conference on the League of Nations.——Dr. Philemon E. Truesdale was elected president of the Bristol South District Medical Society, May 5.——Dr. Frank H. Washburn, Holden, was elected president of the Worcester District Medical Society at the annual meeting, May 11; Dr. Albert M. Shattuck gave an address following the banquet on "Fifty Years," in which he reviewed the progress of medicine.

Loan Fund for Harvard Students.—The *Boston Medical and Surgical Journal* notes that the Medical School of Harvard University, beginning with those entering in 1927, has increased its tuition to $400 a year, and coincidentally will provide a loan fund from which students who enter in that year or thereafter may borrow. Loans will be made to students in the second, third and fourth year classes, and occasionally to men in the second half of the first year, but in all cases to those whose records have been sufficiently creditable to make it probable that they will remain in the school. Beginning this year, all applicants for admission to the school living within 50 miles of Boston will be required to have a personal interview with the assistant dean or a member of the committee on admission.

State Opens Cancer Hospital.—Governor Fuller will preside at the exercises, June 21, which will formally open the Pondville Hospital at Norfolk, an institution provided by the state in an effort to control cancer. Eight buildings erected in 1912 as a branch of the Foxboro State Hospital for Mental Diseases have been refitted; two of the larger buildings are represented in the picture. The institution is in a grove of evergreens, birches and poplars on the main highway to Providence, 30 miles south of Boston. It has ninety-five beds to be used for all types of cancer, modern surgical equipment, roentgen-ray apparatus, radium and a resident radiologist. There is an adequate visiting and consulting staff. Dr. Lyman A. Jones will be the superintendent.



MINNESOTA

New Fellows at Mayo Foundation.—The following physicians, recently appointed fellows at the Mayo Foundation, are majoring in the subjects indicated:

Dr. Charles Grant Bain, Tofield, Alberta, surgery.
Dr. Harry Hamilton Cooke, Minneapolis, surgery.
Dr. Finis G. Cooper, Huntington Park, Calif., surgery.
Dr. David C. Ditmore, Buffalo, Ill., surgery.
Dr. Wilmot C. Foster, Portland, Ore., surgery.
Dr. Clarence Oliver Heimdal, Deerfield, Wis., surgery.
Dr. Wilbur W. Holland, Aberdeen, Md., surgery.
Dr. George E. Malmgren, St. Paul, surgery.
Dr. James M. Marshall, Tooele, Utah, surgery.
Dr. Hamline Mattson, Minneapolis, surgery.
Dr. David Metheny, Philadelphia, surgery.
Dr. Harry T. R. Mount, Springfield, Ontario, surgery.
Dr. Edward H. Ray, Auburn, Ala., surgery.
Dr. Lloyd T. Sussex, Hope, N. D., surgery.
Dr. Fred R. Thompson, Chicago, surgery.
Dr. William A. Bunten, Worland, Wyo., neurologic surgery.
Dr. William A. S. Magrath, Wynyard, Saskatchewan, ophthalmology.
Dr. James S. White, Covington, Ga., ophthalmology.
Dr. Harry A. Daniels, Eveleth, Minn., medicine.
Dr. David G. Ghrist, Hollywood, Calif., medicine.
Dr. Harry M. Margolis, Pittsburgh, medicine.
Dr. Wallace T. Partch, Greenacres, Wash., medicine.
Dr. Roland E. Nutting, Minneapolis, pediatrics.
Dr. Curtis T. Prout, Portchester, N. Y., neurology.
Dr. Dale L. Martin, Orland, Calif., pathology.
Dr. William B. Norment, Trinity, N. C., surgery.
Dr. Carlos Gustavino, Valencia, Spain, surgical pathology.
Dr. Frances Johnson, Red Wing, Minn., biophysics.

Society News.—The Minnesota Society of Internal Medicine offers a cash prize of $250 for the best thesis by any practicing physician, exclusive of members of the society, in Minnesota who has been deemed most worthy to receive a prize in research and clinical medicine; the thesis must be received before Jan. 1, 1928; the secretary is Dr. Edwin L. Gardner, 610 Yeates Building, Minneapolis.——Dr. Arthur C. Strachauer, Minneapolis, addressed the Ramsey County Medical Society, April 25, on "Carcinoma of the Large Bowel."——The West Central Minnesota Medical Society will hold an outing at Ortonville, June 19.——The Southwestern Minnesota Medical Society voted to spend about $250 for a university extension course, the first meeting of which was held at Windom, May 9; Dr. William A. O'Brien of the University of Minnesota addressed the society, April 28, on "Diseases of the Thyroid Gland."——Dr. George E. Sherwood, Kimball, was elected president of the Stearns-Benton County Medical Society at the meeting, April 27.——Among others, Dr. Winford P. Larson of the University of Minnesota Medical School addressed the Chisago-Pine County Medical Society, April 26, on "Development of Scarlet Fever Vaccine"; Dr. Carl W. Paulson, North Branch, was elected president at this meeting——Dr. Stanley R. Maxeiner, Minneapolis, addressed the Redwood-Brown County Medical Society, May 3, on "Surgery of Tuberculous Patients," and Dr. Henry P. Wagener, Rochester, on "Effect of Various Diseases on the Fundus"; Dr. Abraham Franklin Strickler, Sleepy Eye, was elected president at this meeting.

MISSISSIPPI

***State Medical Election.**—At the annual meeting of the* Mississippi State Medical Association, Vicksburg, Dr. John Darrington, Yazoo City, was elected president, and Dr. Thomas M. Dye, Clarksdale, reelected secretary. The next meeting will be held at Meridian, May 8-10, 1928.

NEBRASKA

State Medical Election.—At the annual meeting of the Nebraska State Medical Association, held, May 10-12, at Lincoln, Dr. Benjamin R. McGrath, Grand Island, was elected president, and Dr. Roy B. Adams, Lincoln, reelected secretary. The next meeting will be held at Hastings, in May, 1928. The new president takes office, Jan. 1, 1928.

Tuberculosis Association Meeting.—At the annual meeting of the Nebraska Tuberculosis Association, in Omaha, April 8, the officers were reelected as follows: Drs. Solon R. Towne and Williams N. Anderson, both of Omaha, president and vice president, respectively, and Dr. Augustus D. Cloyd, Omaha, secretary. The chamber of commerce of Omaha gave a luncheon in honor of Philip P. Jacobs, Ph.D., of the National Tuberculosis Association, which was presided over by Dr. Anderson. Dr. Jacobs' address was on "The Money Value of Human Life." The association's work is financed by the annual Christmas seal sale; with about $22,300 annually, it maintains tuberculosis nurses in dispensaries at Lincoln and Omaha, brings speakers to the state, makes tuberculosis surveys, holds exhibits, distributes tuberculosis literature and sends delegates to the national meeting.

NEW YORK

Liquor Licenses Revoked.—The district prohibition administrator recently revoked the liquor licenses of the following for the reason indicated:

Dr. James A. Campbell, New York City, unlawfully issued prescriptions Form 1403. Illegal possession.
Dr. Louis Greenstein, Brooklyn, issued prescriptions for beverage purposes to fictitious persons.

The Grange Confers with County Medical Society.—Following the death of a boy whose mother was unable to obtain a physician during the night, the Grange of Genesee County appointed a committee to confer with the Genesee County Medical Society with the object of making provisions whereby the rural inhabitants might obtain the services of physicians in emergencies.

Dr. Baldwin Awarded Trudeau Medal.—Dr. Edward R. Baldwin, Saranac Lake, director of the Trudeau School of Tuberculosis, was awarded the Trudeau Medal at the twenty-third annual convention of the National Tuberculosis Association, Indianapolis, May 23, for performing work of world-wide significance in the antituberculosis campaign. The medal was presented by Dr. Theobald Smith, Princeton, N. J., the only other person to whom the Trudeau Medal has been awarded.

Radiologists Award Medal. — At the recent medical congress, Washington, D. C., the American College of Radiology awarded its gold medal to William D. Coolidge, Ph.D., assistant director, research laboratory, General Electric Company, Schenectady, "in recognition of his contribution to radiology and the science of medicine." Dr. Coolidge, who invented the Coolidge tube, has done much in the development of the roentgen ray. On the same day, Dr. Coolidge was awarded the gold medal of the Franklin Institute.

Syracuse Alumni Association.—The Medical Alumni Association held one of its largest reunions, June 10; more than 400 of the alumni were expected to be present. Members of the faculty held a clinical pathologic conference at the medical college in the morning presenting cases from both points of view; Dr Henry W Stiles conducted anatomic demonstrations, and at noon the out-of-town members were guests of the city alumni. The departments of physiology, bacteriology, pathology and pharmacology gave four twenty-minute demonstrations in the afternoon, and Dr George D Stewart, New York, addressed the annual meeting of the University Club at 4 o'clock. The annual banquet was in the evening at the Syracuse Hotel, and the guests were Chancellor Flint and Dr Stewart. Following this there was a program of entertainment.

New York City

Appointments and Promotions at New York University.—An announcement was made, May 26, of appointments and promotions at New York University, among which was that of James Kendall, Sc D, as head of the graduate school. Dr. Isaac Levin was appointed clinical professor of cancer research in the medical school, and Dr Walter J Highman, clinical professor of dermatology and syphilology. Dr George A. Koenig was promoted to clinical professor of surgery; Dr. Clement J Halpern to clinical professor of dermatology and syphilology, and Gustave J. Noback, Ph D, to associate professor of anatomy.

Personal.—F. Stanley Howe, assistant business manager of the Rockefeller Institute for Medical Research for about seven years, has resigned to become director of the Orange Memorial Hospital, Orange, N J.——Dr. Walter F Dannreuther has been appointed director of the department of gynecology at the New York Post Graduate Medical School.——Dr Louis Albert Thung has been chosen president of the medical staff of the Swedish Hospital, New York.——Dr George E Brewer, according to the New York *Medical Week*, has announced his intention to retire after this year. He plans to take up anthropology as his field of activity.

Forging Names on Narcotic Prescriptions.—During 1926, eight persons in the New York district were arrested by the federal narcotic unit for forging physicians' names on prescriptions for narcotics, during April, 1927, five women were arrested, one a student, in the act of forging the names of physicians on blanks which had been improperly secured. Unless such prescriptions are for unusual amounts, the forgery usually escapes the notice of the pharmacist. The department of health and the federal authorities would appreciate the effort of physicians and institutions using narcotic forms in prescription style to do everything possible to prevent their falling into the hands of persons who may use such forms illegally to secure drugs.

Hospital News.—The police commissioner has abolished four of the five police clinics in the various boroughs, retaining only the one at the Manhattan headquarters; disabled policemen will go now to the offices of the police surgeons.——Dr Isidore H Goldberger gave three postgraduate lectures at the Willard Parker Hospital, April 26-28, on "Modern Management of Diphtheria, Measles and Scarlet Fever."——Dr Otto Glogau has been appointed otolaryngologist to the Community Hospital, New York.——The Italian Hospital is conducting a drive for $2,000,000 to erect a new building and a training school for nurses.——Maple trees were planted on Memorial Day at the U. S. Veterans' Hospital, West Kingsbridge Road, in memory of four physicians who have died while on the medical staff; namely, Drs. Alfred P. Chronquest, John J. Hughes, Marcus B. Heyman and Isham G. Harris.

Inventory of Social Assets.—The Welfare Council of New York announces plans for a study and inventory of the social assets and liabilities of New York City. The Laura Spelman Rockefeller Foundation and the Commonwealth Fund have made grants amounting to $300,000 for the next five years for this work, provided the council raises the funds required for its general administrative budget. A research bureau has been created by the council to carry on the study and Neva R. Deardorff of the Children's Commission of Pennsylvania has been appointed director. The research bureau will undertake immediately, in cooperation with the social agencies of the city, (1) a study of the income and expenditures of New York City social agencies, (2) an inventory of the public health resources of the community other than those operated by the department of health; (3) a study of the settlement house situation to discover what is being done in this field by 115 institutions. The welfare council has been requested to take up several other projects, one of which is the study of the situation created by the removal of the clinics and hospitals from the west side to the new medical center in Washington Heights. Decisions on this and other projects are still pending. Robert E Chaddock, Ph D, professor of statistics, Columbia University, has been appointed consultant to the research bureau. The council will have the assistance also of an advisory research committee of about sixteen members, among whom are Dr. Louis I. Harris, commissioner of health, and Dr Haven Emerson, Columbia University College of Physicians and Surgeons. There is an outstanding need for this study in New York, Robert deForest, president of the council, says, because of the diversity of the social problems present and the vast amount of money needed for charitable and welfare enterprises each year. Mr. de Forest considers this amount exceeds $100,000,000.

OHIO

Resolution About Medical Ethics.—The house of delegates of the Ohio State Medical Association, at the recent Columbus meeting, adopted a resolution recommending to the medical colleges of the state of Ohio that provision be made in the medical curriculum for definite medical courses on the social relations of the physician, including medical ethics, economics, jurisprudence and medical history.

State Medical Golf Champion.—Dr. Wesley L. Furste, Cincinnati, won the championship of the Ohio State Medical Golfing Association at the seventh annual tournament, held during the state medical meeting at Columbus, and was elected president of the golfing association. Dr. Furste's low gross score for thirty-six holes was 169. One hundred and forty-seven members entered the lists to compete for various honors in the tournament.

Personal.—Dr. Emery R. Hayhurst, professor of hygiene, Ohio State University College of Medicine, Columbus, has been elected vice president of the Ohio Academy of Science.——Dr. Samuel B. McGuire has been reelected president of the staff of Union Hospital at Dover.——Dr. Dudley W. Palmer was elected president of the Cincinnati Academy of Medicine, May 23; Dr. Joseph Brennemann, Chicago, addressed this meeting on "Common Sense in Infant Feeding."

County Society News.—Dr. George S. Derby, professor of ophthalmology, Medical School of Harvard University, Boston, addressed the Academy of Medicine of Cincinnati, April 18, on "Methods of Combating Glaucoma." The academy held its third annual dinner at the Hotel Alms, May 2; the guest of honor was Mayor Seasongood.——Dr. James M. Phillips, Columbus, addressed the Warren County Medical Society, Lebanon, on "Rabies."——The Green County Medical Society will celebrate its seventy-third anniversary in June.——Dr. Irving W. Potter, Buffalo, addressed the Academy of Medicine of Lima and Allen County, Lima, April 19, on "Version," and conducted a clinic at St. Rita's Hospital.——Drs Frank J. Gallagher and Edgar P. McNamee, both of Cleveland, addressed the Hancock County Medical Society, Findlay, April 8, on "Lung Abscess" and "Value of Cholecystography in Diagnosis of Gallbladder Disease," respectively.——Dr. Milton B. Cohen, Cleveland, addressed the Trumbull County Medical Society, Warren, April 21, on "Causes of Failure in Treatment of Hay-Fever and Asthma."——Dr. Allen Graham, Cleveland, addressed the Summit County Medical Society, May 3, on "Toxic Goiter."——Dr. Irwin H. Cutler, Louisville, Ky, addressed the Hempstead Academy of Medicine, Portsmouth, May 9, on "Pyelonephritis."——Dr. C Jeff Miller, New Orleans, gave the fourth annual Gilliam Memorial Lecture before the Columbus Academy of Medicine, April 18, on "Modern Conception and Treatment of Uterine Fibroids."

OKLAHOMA

State Medical Election.—At the annual meeting of the Oklahoma State Medical Association, Muskogee, May 5, Dr Joseph S. Fulton, Atoka, became president; Dr. Ellis Lamb, Clinton, president-elect; Drs. William T. Tilly, Muskogee, Claude T. Hendershot, Tulsa, and Eugene O. Barker, Guthrie, vice presidents, and Dr. Claude A. Thompson, secretary-treasurer and editor. The next meeting will be in Tulsa.

State Policy on Industrial Medicine.—The Oklahoma State Medical Association passed a resolution at its recent annual meeting concerning an ethical tendency in the employment of physicians for injured workmen. Realizing the right of the workman to employ a physician of his choice, the society resolved to consider it unethical for any member to display in any industrial establishment a placard indicating that he has the exclusive right to attend injured workmen therein. It was further resolved that the association appoint a committee of five to meet with representatives of the labor unions, the industrial commission and insurance companies with a view to bringing the industrial practice in the state into conformity with the ethics of the association.

PENNSYLVANIA

Personal.—Dr. Howard C. Frontz, Huntingdon, formerly president of the state medical association, has been elected president of the Pennsylvania Public Health Association to succeed the late Dr. Carey J. Vaux.——Dr. Emlyn Jones, Johnstown, has been appointed chief of the bureau of vital statistics of the state health department, succeeding Russell B. Tewksbury, D.Sc.

Conference on Industrial Nursing.—The state secretary of labor and industry has called a conference on industrial nursing for June 14 at Harrisburg in cooperation with the state department of health, to bring together employers, employees and members of professions to discuss the possibilities of medical care for industrial workers from a practical and technical point of view. About 100 employers have indicated that their industrial nurses will be present. The speakers will include, among others, Dr. Wade Wright, assistant medical director, Metropolitan Life Insurance Company, New York; Dr. Loyal A. Shoudy, chief surgeon, Bethlehem Steel Corporation, and Dr. Lewis R. Thompson, U. S. Public Health Service. The general discussion on industrial nurses and safety will be led by Dr. Edwin H. McIlvain, Philadelphia, and the discussion on industrial nurses and health by Dr. William J. McConnell. There will be a special luncheon meeting for the nurses in attendance.

Philadelphia

Personal.—Dr. and Mrs. Louis von Cotzhausen celebrated their golden wedding anniversary, February 10.——Dr. Wilmer Krusen, director of public health, was guest of honor at a reception at the Hotel Bellevue-Stratford, May 27, given by the Philadelphia College of Pharmacy and Science, of which Dr. Krusen was recently made president.

Society News.—The June 8 meeting of the Philadelphia County Medical Society was "branch night"; each of the six branches provided a speaker. The society has now an honor room in its new building, and has placed therein a memorial tablet on which are the names of eight of its members who died during the World War. Other tablets will be placed there from time to time, reciting the services of members whom the society desires to memorialize.

Jefferson's Drive for Funds.—A drive for $1,500,000 for a new building at Jefferson Medical College will be conducted, June 6-14. The present building, erected in 1898, is inadequate, and will be remodeled for an outpatient department when the new building is completed. Jefferson Medical College and Hospital then will comprise a group of nine buildings. The drive is under the direction of Dr. William W. Keen and Mr. James W. Willcox, one of the trustees. Every member of every team assisting in the drive has been given a copy of Mr. Willcox' cogent "reason why" every "prospect" should become a contributor. It is a small folder in which the question "In what way does the medical college concern me?" is answered. The Journal hopes to be able to present soon a drawing of the new building.

Changes in Faculty at Jefferson.—Dr. Solomon Solis Cohen, for forty-three years a teacher in various capacities at Jefferson Medical College of Philadelphia, has resigned the chair of professor of clinical medicine on account of his age; Dr. Cohen will continue to practice medicine. The departments of medicine and clinical medicine at Jefferson Medical College have been consolidated, Dr. Thomas McCrae remaining head of the department. Dr. Ross V. Patterson, the dean, will take over the clinical work formerly conducted by Dr. Cohen, who has been elected emeritus professor. Dr. Frederick J. Kalteyer has been elected a professor of medicine, and Drs. Edward J. G. Beardsley and Elmer H. Funk, professors of clinical medicine. Dr. Jacob Earle Thomas, recently associate professor of physiology at St. Louis University School of Medicine, St. Louis, has been elected professor of physiology at Jefferson.

SOUTH DAKOTA

State Medical Election.—At the annual meeting of the South Dakota Medical Association, held, May 3-5, at Huron, Dr. Silas M. Hohf, Yankton, was elected president, and Dr. John F. D. Cook, Langford, reelected secretary. The next meeting will be held at Hot Springs, in May, 1928.

UTAH

State Medical Meeting and Postgraduate Course.—The postgraduate instruction offered by the Utah State Medical Association will precede the annual meeting this year being held June 20-22, and will feature diseases of the bone and gynecologic conditions. Dr. Emmet Rixford, professor of surgery, Stanford University School of Medicine, will devote most of three days to lecturing on fractures, and Dr. Palmer Findley, Omaha, will give about the same time to instruction in gynecology. A laboratory course will be given at the University of Utah School of Medicine throughout the week. The registration fee is $10. At the annual medical meeting, June 23-25, Drs. Harold L. Amoss, and Dean Lewis, both of Johns Hopkins University Medical Department, Baltimore; Dr. Frank Hinman of the University of California Medical School, and Dr. Robert B. Osgood of the Medical School of Harvard University, Boston, and other nationally known speakers will appear on the program.

WASHINGTON

First Meeting of Society in Spokane in Ten Years.—The annual meeting of the Pacific Coast Oto-Ophthalmological Society, Spokane, June 6-11, according to the Spokane *Chronicle*, was the first meeting of the society in that city since 1917. Dr. Carroll L. Smith, Spokane, presided; among the guest speakers were Drs. Walter B. Lancaster, Allen Greenwood and Harris P. Mosher, all of Boston; James M. Patton, Omaha; Ross H. Skillern, Philadelphia; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Hanau W. Loeb, St. Louis; Joseph C. Beck, Chicago; Thomas E. Carmody, Denver; Frank R. Spencer, Boulder, Colo.; Thomas H. Halstead, Syracuse, N. Y., and William P. Wherry, Omaha. During the meeting, representatives of the American Board of Ophthalmology and the American Board of Oto-Laryngology conducted examinations for membership in the national societies.

WEST VIRGINIA

Action on Bills.—The West Virginia State Medical Association sponsored the bill recently passed by the legislature to establish a tuberculosis sanatorium in the southern part of the state; the $216,000 earned by state hospital number 1 at Welch will be applied toward its construction. The state association also cooperated in defeating the bills providing for the healing of the sick by spiritual means and for limiting the working hours of nurses to eight a day.

Picturesque Setting for State Medical Meeting.—Members of the West Virginia State Medical Association will gather among beautiful surroundings at the Greenbrier Hotel in White Sulphur Springs for the annual meeting, June 21-23. Furthermore, it is urged that the wives of members see that their husbands attend the convention and accompany them. The Midland Trail from Huntington to White Sulphur Springs has never been better, the road from Parkersburg to Charleston was completed last year, and the Shenandoah Valley Route is recognized as one of the most beautiful drives in the east. A golf tournament will be played, Monday; Dr. Chester R. Ogden, Clarksburg, the president, will preside at the opening session, Tuesday, and Dr. Jabez N. Jackson, Kansas City, President of the American Medical Association, will speak; among other speakers at the scientific sessions will be Drs. John Shelton Horsley and Claude C. Coleman, Richmond, Va.; Gabriel Tucker and Joseph Sailer, Philadelphia; John E. Monger, Columbus, Ohio; William A. Frontz, Robert Tunstall Taylor and Waitman F. Zinn, Baltimore; George W. Crile, Cleveland; Andrew C. Ivy, Chicago, and J. Sydney Ritter, New York. The oration in medicine will be delivered by Dr. Charles P. Emerson, Indianapolis.

WISCONSIN

Bills Introduced.—House bill 654 would establish a county home for the feebleminded in counties having population of 250,000 or more. House bill 696 and T. N. 700 would prohibit the sale or possession of cosmetics containing lead, mercury or other poisonous substances.

GENERAL

Medical Courses in English at Paris.—The Medical Faculty of Paris has organized a course of lectures and demonstrations to be given in English, in October, for 50 francs a lesson per person They will cover diseases of the lungs, nerves and heart, diseases of children, obstetrics and gynecology, diseases of bones and joints, ophthalmology and other specialties, among the instructors will be some of the most prominent physicians in Paris A detailed program of each course can be obtained by writing to the secretary of the A D R M, Salle Béclard, Faculte de médecine, 12, rue de l'Ecole de medecine Paris, VI

College Credit for Sight Saving Study.—The National Committee for the Prevention of Blindness announces that university credits will be given for work done in pursuit of courses in sight saving classes at the University of Southern California, Los Angeles, the University of Cincinnati, Cincinnati, and Peabody College, Nashville, Tenn. There are now 265 sight saving classes in the United States, and according to the director of the National Committee for the Prevention of Blindness, there should be about 5,000 to provide a normal education for the children who have seriously defective vision The experience of the classes already in existence shows, it is said, that it is possible to educate in the public schools many children with seriously defective vision who, though not blind, in former years found their only opportunity for education in schools for the blind Inquiries may be addressed to the National Committee for the Prevention of Blindness, 370 Seventh Avenue, New York

Society News—At the twelfth annual meeting of the American Association of Industrial Physicians and Surgeons, May 16 17 Baltimore, Dr Thomas R. Crowder, Chicago, was elected president, Drs Clare F. N. Schram, Beloit, Wis, and Robert S Quimby Watertown, Mass, vice presidents, and Dr Frank L Rector, Chicago, secretary-treasurer——Elmer V McCollum Ph D, Baltimore, was elected president of the American Society of Biological Chemistry, and D. Wright Wilson, Ph D, Philadelphia, secretary at the annual meeting in Atlantic City N J, April 14-16 The next annual meeting will be held at Ann Arbor, Mich——Dr. Louis A. Buie, Rochester Minn, was elected president of the American Proctologic Society, and Dr Walter A. Fansler, Minneapolis, secretary at the annual meeting in Philadelphia, May 12-14.——Dr John Claxton Gittings Philadelphia, was elected president of the American Pediatric Society, and Dr Howard C Carpenter Philadelphia, secretary, at the annual meeting, May 12 15 The next meeting will be held, April 30-May 2, 1928, at Washington D C——Dr. Henry G Bugbee, New York, was elected president of the American Association of Genito-Urinary Surgeons, Dr William C Quinby Boston, vice president and Dr Herman L Kretschmer, Chicago, secretary at the annual meeting in Absecon, N J, May 9-11 The next meeting will be held in Washington, D. C, in 1928.——Dr Evarts A Graham, St Louis, was elected president of the American Association for Thoracic Surgery, and Dr Ethan Flagg Butler, reelected secretary, at the annual meeting in New York, May 9-11 The next meeting will be held at Washington, D C, May 1-2, 1928——Dr Emmet Rixford, San Francisco, was elected president of the American Surgical Association, and Dr Lincoln Davis, Boston, secretary, at the annual meeting in Richmond, Va, May 12-14 The next meeting will be held at Washington, D C, May, 1928——Dr Elizabeth B Thelberg, of the faculty of Vassar College, Poughkeepsie, N Y, is president of the Medical Women's National Association, and Dr Louise Tayler Jones, Washington, D C, is president-elect——At a meeting of the medical and surgical section of the American Railway Association, May 17, at Richmond, Va, the officers were reelected as follows Dr William H. Bohart, Chicago, chairman, Drs Leonard A. Ensminger, Indianapolis, and Samuel C Plummer, Chicago, vice chairmen, and J C Caviston, New York City, secretary——The New England Society of Physical Therapeutics met, May 25, at the Ring Sanatorium and Hospital, Arlington Heights, Mass, under the presidency of Dr. Elmer F Otis, Melrose Dr Philip H Greeley, Portsmouth, N H. and Dr. Arthur H. Ring, Boston, read papers, about fifty physicians from the New England states were present——Dr Henry Longstreet Taylor, St Paul, Minn, was elected president of the National Tuberculosis Association at the annual meeting in Indianapolis, May 23-26, Drs William C White, Washington, D C, and Alfred Henry, Indianapolis, vice presidents; Dr Charles J Hatfield, Philadelphia, secretary and Henry B. Platt, New York, treasurer——Carl Voegtlin, Ph D, Washington, D C, was elected president of the Federation of American Societies for Experimental Biology, and Dr. Edgar D. Brown, Minneapolis, secretary. The next meeting will be held in the spring of 1928 at Ann Arbor, Mich.

LATIN AMERICA

Personal.—Dr. Harlin A. Harris, formerly of Mazatlan, Mexico, has been appointed chief surgeon of the Southern Pacific Railroad Company of Mexico to succeed Dr. Emile C House, Empalme, Sonora.——Prof Abreu Fialho was appointed dean of the School of Medicine of Rio de Janeiro by the president of Brazil, February 4.

Commencement at School of Tropical Medicine.—The School of Tropical Medicine of the University of Porto Rico, under the auspices of Columbia University, New York, held its commencement exercises, May 11, in the assembly hall at San Juan, P R There were twenty-nine students in this the first year of the school, of whom one, Dr. Gurbox Singh Sant of Amritsar, India, received a "Certificate in Tropical Medicine" The speakers at the exercises included, among others, Dr Robert A Lambert; Thomas E. Benner, chancellor of the University of Porto Rico, and Dr. James W. Jobling, of Columbia University College of Physicians and Surgeons. Drs Gutierrez Ortiz and Goyco represented the medical profession of Porto Rico, and the Rev. Gonzalez Palacios, Valencia, Spain, represented the student body.

FOREIGN

New Site for London University.—The University of London has acquired a new eleven acre site just north of the British Museum in Bloomsbury. Part of the funds necessary to make the purchase were provided by the Rockefeller Foundation This is a central location; the present university buildings are said to be scattered about the city. The British government bought this site several years ago for the university, but the university was unable to accept the government's offer on account of certain conditions attached.

International Congress of Psychology.—Dr. Alfred Adler, Vienna, will give the introductory lecture at the fourth International Congress for Individual Psychology, which will take place in that city, September 17-19. The first session will be devoted to the subject of "The Prevention and Treatment of the Psychoses" Sunday will be devoted to the prevention and treatment of problem children and criminals, and Monday to lectures by prominent scientists of Vienna. The lectures will be in English, French or German. Application for membership and other details should be addressed to Dr. Carl Novotny, Untere Weisgerberstrasse 16/17, Vienna, 111/2, Austria.

Brussels Medical Convention.—The seventh session of the Brussels Medical Convention, organized by the Bruxelles-Médical, will be held, June 25-29; Prof Jean Verhoogen of the Academie royale de médecine will serve as chairman Prof. Pierre Mauriac of Bordeaux will speak at the opening session on "The Confines of Medicine" The program will deal with the theoretical and practical aspects of many important problems of medicine. Among the speakers will be MM. Besredka, Pasteur Institute, Paris; Viggo Christiansen, Copenhagen; Gomez Ulla, Madrid, and Maurice Chiray, Paris The Association générale des dentistes de Belgique will participate. The registration fee will be 75 francs ($3). Dr. R. Beckers, 62 Rue Froissart, à Bruxelles, Belgium, is the secrétaire-général.

Deaths in Other Countries

The report of the death of **René Schickelé**, of the University of Strasbourg, in The Journal, May 28, was erroneous: it was **Gustave Schickelé** and not **René** who died.——**Edmond Rouffart**, professor of gynecology, University of Brussels, founder of the Belgian Society of Gynecology and Obstetrics, May 20, at Brussels, aged 72——**W. Filehne**, formerly professor of pharmacology, aged 83——**Franziska Tiburtius**, said to be the first woman physician in Germany, aged 84

CORRECTION

Efficiency of Female Mammary Gland.—In The Journal, June 4, page 1853, appeared an abstract of an article by A Kollmann, entitled "Functional Efficiency of the Female Mammary Gland." The original article appeared in the *Archiv fur Kinderheilkunde*, Stuttgart, of Jan. 26, 1927 Because of the use, frequent in German, of the comma in place of the decimal point, the quantity was given as 1,611,980 liters instead of 1,611 980 liters

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 25, 1927.

The World List of Scientific Bibliography

The World List of Scientific Periodicals published by the Oxford University Press has been completed. Few as large, and certainly no more arduous, tasks in bibliography have ever been accomplished. The first part of this great undertaking was to compile in alphabetical order a list of all periodicals containing the results of scientific research in existence between the years 1900 and 1921. This was published as volume 1 in 1925. It contains the stupendous number of just over 24,000 separate periodicals. But the list was not complete, notwithstanding the exhaustive search of known catalogues made by Dr. Pollard, then keeper of printed books at the British Museum, and in a supplement issued with volume 2, more than 600 periodicals have been added. The preparation of the second volume necessitated even greater labor and has performed an even more important service to science. The adage "verify your references" is made difficult, sometimes impossible by the ambiguous abbreviations of titles often given by authors. To overcome these difficulties, several institutions have adopted their own sets of abbreviations. These, however are for the most part based on a limited series of periodicals, and also differ among themselves. The second volume of the World List consists in the first place of a set of abbreviations consistent and unambiguous for the whole set of nearly 25,000 periodicals. If it could be universally adopted, the temporary inconvenience of changing existing systems would soon be overcome by the permanent advantage to all scientific workers. Even when a reference is given correctly, the seeker after knowledge has to discover where he can find the periodical. To aid in that, twenty-one centers in Great Britain and Ireland have been selected. Symbols have been assigned to the more important libraries in each of these centers, and after the contraction for each periodical is placed the symbol of libraries in which the periodical is to be found. But apart from the direct aid supplied in this way, some remarkable and disconcerting results have appeared, because for a considerable proportion of the periodicals no home in Great Britain and Ireland has been discovered. Even London, with twenty-seven important scientific libraries, misses many periodicals, some of high value.

The Bleaching of Flour

A committee of eminent physicians and scientists was appointed by the government to consider "whether the practice of treating flour with chemical substances is objectionable on grounds of health, and whether the practice should be prohibited or restricted, and in the latter case what restrictions should be imposed." It has now presented its final report. For flour used for bread making the capacity to make a large, well risen loaf of good texture which shall be white is desired by bakers. Flours deficient in these characteristics are frequently treated with chemical agents, which may be either bleaching agents or 'improvers' or both. The principal bleaching agents are nitrogen peroxide, benzoyl peroxide, chlorine, and nitrogen trichloride. Bleaching was introduced into this country about twenty-two years ago to meet a demand for white bread. Flour, after milling, changes slightly on keeping, its baking qualities improve, and its coloring matter is bleached. This natural aging is probably an oxidation process. Imported flour from America and Australia is kept sufficiently long to exhibit this aging effect. British flours cannot easily be kept because of absence of storage facilities and because of expense. Hence the practice of bleaching enables millers to compete with importers of flour which has the natural advantage of aging.

Bleaching eliminates the difference in appearance between the higher and the lower grades of flour from the same wheat. The higher grades, which are obtained from the hardest part of the endosperm called the semolina, are not only harder but produce a lighter colored flour; these are known as "white" or 'patents" and total about 50 per cent of the flour milled; the remainder are known as 'households." From the latter and softer flour the offal is less perfectly separated. By the use of bleaching a proportion of the 'households' can be made to simulate patents, and a "longer range of patents" can thereby be obtained. Chlorine bleaches by combining with the coloring matter of the flour (carotin), but it also combines with other constituents of the flour. It can act on the tyrosine and tryptophan groupings of the gluten complex with injurious results. The vitamins in flour are very susceptible to traces of chlorine and may be destroyed. Nitrogen trichloride has a similar action but is much more reactive than chlorine, and therefore less of it is used. Benzoyl peroxide, after bleaching the coloring matter in the flour, remains as benzoic acid, and although the amount is small it is better that flour should not contain benzoic acid. Nitrogen peroxide, like the other bleachers, oxidizes the carotin in the flour. It is less reactive with proteins and fats than chlorine; it leaves nitrites in the flour, though very little. The committee regards nitrogen peroxide less unfavorably than the other bleaching agents. The substances used as 'improvers' are principally chlorine, nitrogen trichloride, acid calcium phosphate, acid ammonium phosphate, and persulphates, besides extracts of malt and wheat germ. It is claimed that "improvers' enhance the natural baking qualities of flour by yielding well risen loaves of good volume and symmetry, of satisfactory texture, and of even aeration. "Strength' is the term applied to flours possessing this character, and it depends on the qualities of the contained gluten. Some wheats are "weak," but the properties of the gluten can be altered by the addition of certain salts and acids. It is claimed that by the use of "improvers" a more varied supply of wheats can be used and blended, and a flour of uniform baking quality thus maintained. It is claimed also that the "improver" promotes the growth of yeast and so improves aeration. How improvers act is more difficult to define; one important factor is the degree of acidity. It is known, for example, that acid phosphates cause dispersed gluten to cohere, but another explanation ascribes the gluten change to oxidation.

The committee considers that a staple and indispensable foodstuff such as flour should be jealously guarded against unnecessary treatment with foreign substances but is not prepared, on the present knowledge available, to recommend the complete elimination of the bleaching agents and improvers. It advises that chlorine, nitrogen trichloride, and benzoyl peroxide should be forbidden. It should be compulsory for the manufacturers of chemical substances for use either as bleaching agents or as improvers or both to declare the nature of the ingredients of which they are composed, and that millers should be required to inform their customers whether their flour has undergone a process of chemical bleaching or improving or both, and if so, with what substances and in what proportion.

Bacteria Cause of Stone Decay

A new sphere of the destructive activity of bacteria has been discovered. The report of the stone preservation committee has been submitted to the building research board of the department of scientific and industrial research. Broadly speaking, this study has two aspects (*a*) chemical, physical and geological, and (*b*) biologic Mr Scott Russell was appointed to carry out the first series of investigations, and arrangements were made for Asst Prof S G Paine of the Imperial College of Science and Technology to undertake work with a view to determining whether there was sufficient evidence in favor of the theory that living organisms play a substantial part in stone decay to warrant more extended investigations in that direction Mr Scott Russell set himself at the outset to the perfecting of a method of cutting and mounting thin sections of specimens of decayed stone He used a synthetic resin which in liquid form impregnated the specimen at ordinary temperatures and which could then be converted into an infusible solid without causing appreciable distortion Many difficulties were encountered A method has, however, now been developed satisfactorily It appears that the microstructure of building stones is of primary importance and that the distribution of the pores in the stone is a preponderating factor in determining the rate of attack It was realized from the first that the investigation of the biologic activity in such a specialized medium as was presented by stone would call for new methods of bacteriologic technic A good beginning had been made in this direction and it was now possible to determine the actual bacterial content of different kinds of stone and of the same kind of stone under different degrees of weathering It had been established that stone apparently sound, might contain bacteria in considerable numbers, that, in fact, micro-organisms are present in the stone quarry to a depth of 2 feet below the quarry face This emphasized the possibility that investigation of anaerobic bacterial activity might be of as great importance as investigation of aerobic activity, if not indeed greater Experiments showed that different samples of weathered stone when incubated under these two conditions might behave very differently, the rate of growth of the organism in one sample might be enhanced by anaerobic conditions while in another exactly the reverse phenomenon might be shown The conditions prevailing in various samples of weathered stone were thus found to give rise to varying floras Apart from these variations the flora of stones collected in widely different localities exhibited a close general similarity The fact emerged that stone floras were limited to a small number of species so far only twelve had been observed These have been isolated and maintained in pure culture and are now under investigation, culturally and physiologically with a view to the appraisal of their importance in the processes of stone decay It is not yet possible to say whether bacteria play an important part in the processes of stone decay On isolating the bacteria from a certain specimen of weathered stone, the colonies which developed on the plate were all of one kind This fact, sufficiently significant in itself, was rendered still more so when, on investigation of the characteristics of this species, it was found capable of making luxuriant growth on an artificial medium so poor in organic food material that the life of other bacteria was barely supported

The Treatment of Hydrophobia in Calcutta

The second annual report of the Pasteur Institute in Calcutta is important because of the large number of cases of hydrophobia treated It deals with the year 1925, when 5,585 patients attended, of whom three fourths went through a course of antirabic treatment None of the 247 Europeans or Anglo Indians who underwent treatment died, but thirty three of the 3,921 Indians succumbed However, the conditions were much more favorable in the former Half the Europeans were no more than licked by the rabid animal, only 17 per cent of them had deep bites, none were bitten by a jackal, and 82 per cent came for treatment within a week On the other hand in 98 8 per cent of the Indians the skin was broken; 46 per cent were bitten deeply, in 33 per cent, the bite was of a jackal, and more than one third did not reach the institute until a week or longer had elapsed Sixteen of them developed hydrophobia either during the course of treatment or within fifteen days from its completion, and therefore can hardly be considered to be failures of treatment, but the remaining seventeen, who developed symptoms later than this, are set down as actual failures of treatment

PARIS

(From Our Regular Correspondent)

May 11, 1927.

The Congress of Red Cross Representatives

An assembly of directors of Red Cross societies was held in Paris, May 4 at the headquarters of the league (2 Avenue Velasquez), and the session was continued for nearly a week Fifty four nations were represented No international assembly of Red Cross societies has brought together, in recent years so many distinguished personages M Thiebaut announced that the French Red Cross Society, of which he is the secretary, had decided to send financial aid and antityphoid vaccine for the flood sufferers of the Mississippi Valley M Mortoft expressed thanks, in the name of the Red Cross Society and the government of Bulgaria, to the Red Cross societies who contributed for the benefit of Bulgarian refugees Colonel Draudt, vice president of the German Red Cross, made a statement in the name of his society "The German Red Cross Society has been able fully to appreciate, during recent years, the value of ties, uniting peoples, based not on the fragile supports of politics but secured through the more lasting bonds of human sentiment. The Red Cross Society constitutes such a bond—the greatest in the world" The council adopted a resolution which proposes the holding of a unified international conference every four years and a session, every two years, of the council of directors It was adopted by 39 votes to 7, the latter figure representing the Red Cross societies of the Scandinavian countries The council of directors reelected its staff of officers as follows Hon John Barton Payne, president, General Pau, honorary vice president, MM Kawal (Japan), Comill (Cuba) and Colonel Draudt (Germany), vice presidents The new members of the executive committee are M Geoffroy (France), Sir Arthur Stanley (Great Britain), Senator Ciraolo (Italy), Mr Athanasaki (Greece), Miss Masarykova (Czechoslovakia) and Professor Calderon (Columbia)

The International Conference on Rabies

The International Conference on Rabies, which was held recently at the Pasteur Institute in Paris, has not published its conclusions promptly because many members have been obliged to await the outcome of research The conference was divided into four subcommittees, the first of which, presided over by M Krauss and Bordet, studied, after a paper by A Marie, the nature of the virus of rabies The subcommittee concluded it was not in a position to decide whether the Negri bodies represent a form of bacteria or a reaction of the nerve cell The second subcommittee, presided over by MM Bujwid and MacKendrick, and the third headed by MM Pfeiffer and Zlatogaroff, studied, at first separately, then in collaboration, vaccinal treatment and postvaccinal accidents The papers were presented by M A Marie and M Remlinger The conclusion was reached that the technic introduced by Pasteur, forty-one years ago, was not susceptible of essential improvement The living virus used by Pasteur is preferable to the killed virus, and is harmless Virus that has been sterilized or attenuated by ether or phenol (carbolic acid) is not acceptable, except in vast regions in which communications are few and conservation of the living virus for a long period is difficult The researchers were unable to determine the causes of post-vaccinal accidents. There appear to be several causes, some accidents being attributable to age, some to overfatigue, some to syphilis, some to nervous conditions, as is the case with the intellectuals. Accidents are less frequent with glycerinated spinal cord and phenolized vaccine. There was a difference of opinion on the question of applying antirabic treatment to a person whose skin has been contaminated by the saliva of a hydrophobic animal or person, without breaking the skin. The conference passed a resolution recommending that the health section of the League of Nations make arrangements with one or more institutes for the organization of control, at regular intervals, of the various strains of virus and for the establishment of a standard virus of high immunizing potency. These institutes should send to the League of Nations their statistics on the patients vaccinated by them after an observation period of six months in each case. The fourth subcommittee, presided over by MM. Di Vestea and Kitejima, with M. Vallée delegated to read the paper, studied preventive vaccination of animals. In spite of the large number of favorable cases reported thus far, the committee did not think that the time had come to propose a modification of present sanitary legislation. It did, however, recommend preventive vaccination of the dog, each year, in the antirabic institutes and the veterinary schools, together with inspection of the dog, at the end of four months, by a veterinarian, and the keeping of a regular list of vaccinated subjects. The vaccination of animals other than domestic carnivora is not feasible, except in regions in which an epidemic may be raging with intensity. It is sufficient, when a subject is bitten, to apply vaccination of the subject within the first four days, or before the tenth day, at the latest.

Meeting of the International Bureau of Public Health

The special 1927 session of the permanent committee of the International Bureau of Public Health has just opened in Paris under the chairmanship of the Belgian delegate, M. Velghe. The session dealt with questions pertaining to sanitary agreements, chief among which was the international sanitary convention signed at Paris, June 21, 1926. A plan was considered for the organization of an information service on sanitary matters, with the collaboration of other international organizations, such as the bureau of the Far East of the League of Nations, located at Singapore, and the Pan-American sanitary bureau in Washington. The committee occupied itself further with the carrying out of the international arrangement that was signed, Dec. 1, 1924, the object of which is to provide sailors of the merchant marine who have venereal disease with gratuitous treatment in the chief ports of all countries. Other questions discussed at the session concerned the status of physicians on board merchant vessels, the sending by wireless of information as to quarantine regulations, the mental sequels of epidemic encephalitis, the epidemiology of the plague, the conservation of virus in wild rodents (South Africa, Russia, Siberia, California), and the possibility of united international action against such diseases as tuberculosis and cancer.

The Sale of Tuberculosis Seals

The president of the republic continues to be greatly interested in the sale of tuberculosis seals. M. Doumergue has given a beautiful Sèvres vase to the Comité national de défense contre la tuberculose, to be bestowed on the department of France that was most active in promoting the sale of health seals.

The Antirachitic Action of Cod Liver Oil

From a study by Dr. Simon, presented as an inaugural thesis at the Faculté de Paris, it appears that the antirachitic potency of cod liver oils is variable and that the causes of the variability are still unexplained. Some oils are entirely inactive, though they give the same physicochemical reactions as the others and meet the conditions demanded by the pharmacopeia. The color is not of significance. Some oils even cause an exacerbation of the rachitic process. These are usually recognizable by the fact that they cause, at the same time, digestive disturbances. By filtration the harmful principle can be eliminated. M. Simon holds that the only reliable means of controlling the efficacy of cod liver oils is a biologic test made on rats in which rachitic symptoms have been experimentally induced.

BELGIUM

(From Our Regular Correspondent)

April 2, 1927.

Suspension of Right to Practice Medicine

For the first time in Belgian history, a judgment of the correctional court (Brussels) provides that a physician shall be deprived, for the space of one year, of the right to practice the art of healing. The sentence is imposed on a practitioner who unnecessarily prescribed morphine in such a manner as to "create, maintain or aggravate a morphinomania." The sentence includes a fine of 30,000 francs.

Vocational Guidance

The Institut des hautes études of Belgium has recently added to the courses in ergology (1) systematic instruction in occupational selection and recuperation, under the direction of Dr. Paul Sillier and José Drabs, and (2) a course in psychotechnics in connection with occupational guidance, selection and recuperation, under the direction of M. José Drabs. These courses are intended more especially for engineers, physicians in factories, labor inspectors, candidates for employment as vocational guidance experts, managers of labor organizations, and members of instructional corps.

Industrial Medicine

Before the Société belge de médecine et de chirurgie Dr. Stassen has presented a study on the adaptation of the medical profession to the conditions of modern industry. He brought out the rôle of the physician in the economy of large modern factories. After giving an account of the development of medical organization in the coal mining region about Liége, he referred to the crusade against nystagmus and ancylostomiasis. These diseases have almost disappeared. Then he described the progress made in surgical services. Infection of wounds is the most important cause of disablement, and the results of the campaign against infection have been excellent. Whereas, in 1907, it was estimated that 40 per cent of lacerations and contusions of the fingers with openings in the flexor tendon sheaths developed infections, in 1910, the percentage had fallen to 10, and, in 1914, to 5. After the war, infections resulting from the opening of tendon sheaths fell below 3 per cent in 1920, to 1 per cent in 1921, to 0.7 per cent in 1922-1923, and they scarcely amounted to 0.2 per cent in 1924-1925.

Investigations as to the causes of accidents and joint researches carried out by the medical and the technical services may play an important part in the prevention of accidents.

Previous to 1906, in certain coal-mining regions the annual death rate from accident was 2 per thousand among the miners. During the period 1906-1909, the proportion was 1.8 per thousand; from 1910-1913 it dropped to 0.9 per thousand, and from 1920-1925 to 0.3 per thousand. In the coal mines in which preventive measures have not been organized, the yearly proportion of fatal accidents has remained 1 per thousand.

The organization of these services has decreased the number of days that the mines have been closed down. The figures express a definite economic value of the organization of medical aid in the industries.

Every coal miner in 1907 lost from accidents five days' work each year; in 1920-1925, only one day. For 10,000 workmen this represents a gain of 40,000 working days annually.

Prenuptial Examinations in the Grand Duchy of Luxemburg

Frequent reference has been made to the attempts of Dr. Govaerts to organize a system of prenuptial examinations in Belgium. Public opinion is interesting itself more and more in this question. In the Grand Duchy of Luxemburg, the projected law is based on the principle that the state is vitally interested in opposing the union of defectives, in order to prevent them from producing a degenerate progeny that will become a charge on the state. Taking this view of the matter, the state is justified in demanding that couples shall undergo a medical examination before marriage, although it is not necessary that the certificate issued them shall specify the exact nature of a disease from which one or the other applicant may be suffering. It is sufficient that they have consulted a physician in regard to the health aspects of their prospective union.

If the legislature accepts this view of the matter, it will stipulate that no civil officer may perform a marriage ceremony without requiring the presentation of a medical certificate dated within the last three days.

Sanitary Organization in the Belgian Congo Region

Dr. Broden gave recently a survey of the sanitary organization in the Belgian Congo region. The sanitary corps is composed of physicians attached to the state service. The laboratory physicians and the medical hygienists constitute a sort of staff charged with the supervision of the sanitary affairs of the colony. The work is not merely of an administrative nature, for the various laboratories at Leopoldville, Stanleyville, Elizabethville and Kitega are centers of research. In addition, there are the resident physicians whose mission it is to guard the health of the Europeans and the natives. Each center, no matter how unimportant, has a hospital with special departments for the natives. To each hospital several physicians are permanently attached, while others have itinerant missions that require them to cover assigned circuits. In the regions especially affected by trypanosomiasis special missions have been established with the object of checking the progress of the disease.

The hundred physicians attached to the Congo services all hold diplomas issued by the Ecole de médecine tropicale in Brussels. Pharmacists and sanitary employees are recruited from among Europeans who have sufficient training to apply hygienic treatment. These sanitary employees are trained in a special department of the Ecole de médecine tropicale before being sent to the Congo, where they can improve their knowledge through work in the colonial laboratories. There are at present fifty-two such sanitary employees attached to the Congo medical services. In addition there are volunteer nurses and nurses attached to the various religious orders. Nevertheless, this organization, raised to as high a standard as may be, is insufficient and the government therefore aids the auxiliary service that has been developed through the religious missions. The Ecole de médecine tropicale has likewise given medical training to prospective missionaries.

The missions have established twenty-five modern hospitals, some of which are models. The principal commercial and industrial centers are provided with sanitary stations, in which more than seventy-five physicians are engaged. Recently the committee constituted for the promotion of sanitary work has collected 4,000,000 francs ($160,000) with which to improve sanitary conditions in the Belgian Congo region. About a year ago, a branch of the Red Cross was established in the colony, and, within a period of four months, nearly 6,000 natives have been given medical examinations. The Oeuvre de l'enfance, a child welfare society, has likewise saved many lives in Africa.

The International Congress of Urology

The third Congress of the International Society of Urology will be held in Brussels, August 3-6, under the chairmanship of Prof. Jean Verhoogen. The three main topics on the program are: (1) the comparative value of the various methods of examining the blood and the urine in urologic surgery, the main speakers being Chabanier, Paris; Kojen, Belgrade, and Quinby, Boston; (2) treatment of tumors of the bladder by physical agents, the chief speakers being Beer, New York; Fryszman, Warsaw, and Heitz-Boyer, Paris, and (3) treatment of tuberculosis of the genitalia, the principal papers to be given by Barney, Boston; Gamberini, Bologna, and K Walker, London. For information concerning the congres application may be made to Dr. Jean De Smeth, 126 Boul vard de Waterloo, Brussels.

BERLIN

(From Our Regular Correspondent)

May 14, 1927.

Vital Statistics of Berlin in 1926

In 1925 there were only 35,092 marriages in Berlin; in 1926 the number rose to 36,593. The number of marriages per thousand of population was 7.8 in 1924, 8.7 in 1925, and 8.9 in 1926. The number of marriages contracted in 1926 was only slightly higher than the annual number during the prewar period. The birth rate has been affected in just the opposite manner. Whereas for the years 1923, 1924 and 1925 a slow increase in the number of living births was observable, in 1926 there was a slight decrease over the figures for the previous year (45,082 as against 47,071). The figures for the two years are accordingly 11.7 and 11.0 per thousand of population. Compared with the number of living births in 1913 (76,700), the figures for 1926 indicate a decrease for 1926 of about 40 per cent.

The number of deaths has decreased slightly; namely, from 45,651 in 1925 to 45,371 in 1926. Since, at the same time, there was an increase of the population, the death rate per thousand of population dropped from 11.3 in 1925 to 11.1 in 1926. The downward trend observable in the death rate of Berlin since 1922 did not suffer, therefore, any interruption in 1926.

The natural growth of Berlin, since, during the course of a year, the birth rate remains essentially constant, depends to a great extent on the fluctuations in the mortality. Although for the year 1925, as a whole, there was an excess of births over deaths amounting to 1,420, in the last three months of the year the reverse was true: the number of deaths exceeded the number of births. Only during the months from May to September, 1926, was there an excess of births over deaths, amounting to 1,054, so that the excess of deaths over births for the entire year amounted to 289.

Medical Researches on Mummies

In the *Münchener medizinische Wochenschrift*, Dr. Arnold Sack of Heidelberg gives an account of the results of the pathologic examination of not less than 30,000 Egyptian mummies, the main purpose of which was the discovery of pathologic changes. The peculiar religion of the ancient Egyptians, which taught that, after death, the human soul began a series of migrations extending over many thousands of years, whereupon it would return to the body of the deceased, is the fundamental reason why we still have preserved, entirely unchanged, a countless number of mummified bodies of persons who lived on the Nile during the reigns of the Pharaohs, three and four thousand years ago and longer. It was the first duty of every pious Egyptian to provide, while living, for the careful mummification and worthy burial of his body, in order that his existence, after death, in the world beyond might be happy and more beautiful.

For the medical investigator, there is interest in examination of mummies for traces of pathologic changes of any kind, in order to gain an insight into the condition of health among the ancient Egyptians, who are known to have had a comparatively highly developed art of healing.

Marked anatomic malformations and changes were, of course, the easiest thing to discover. For example, on the mummy of Pharaoh Siptah, of the nineteenth dynasty, a typical club foot was found. Numerous bone fractures were discovered, especially of the forearm; on the mummies in question there were, in some cases, artfully contrived splints. Bladder stones were found in mummies dating back to periods preceding the first dynasty. Kidney stones were found only as far back as 3200 B. C. In a mummy of the fifteenth dynasty a case of tuberculosis of the spine was established. Cancerous ulcers were not found until the Byzantine period was reached. Gouty changes were discovered in the mummy of an aged man. The feet especially were involved, and, more particularly, the great toes. The knee joints and the patellar ligaments were markedly penetrated with a white substance. White, chalklike deposits, which on chemical examination gave the typical reactions to uric acid, were found in the wrist and arm joints.

The observations made on the teeth of mummies are very interesting. In the oldest periods bad teeth were rare and in the poor population bad teeth were lacking. They were comparatively frequent, however, in the bodies of the kings. The 500 bodies of Egyptians of the uppermost class, which were excavated near Gizeh, presented tartar formation and dental caries to an extent almost equal to that of the modern European.

In the mummy of an Ammon priestess of the twenty-first dynasty an extensive pelvic abscess was found, and in the face of the mummy of Rameses V a peculiar skin change was noted which resembled smallpox scars.

The most important result for the science of medicine was the fact that changes indicative of syphilis could not be found on the mummies, which constitutes further evidence for the belief that syphilis was unknown to the ancient world. The mummies furnish likewise valuable material for the study of leprosy. The only case of leprosy that could be found in a mummy dated from the late Christian epoch, which strengthens the assumption that the leprosy of the Jews of biblical times, "*zaraath*," has nothing to do with genuine leprosy—that the leprosy of ancient times was a different disease the exact nature of which can be explained only by further researches in the field of historical medicine.

Marriages

Emmett P. North to Carolyn Tweedie, both of St. Louis, at Washington, D. C., May 19.

Jay W. Carter, Greenup, Ky., to Mrs. Minnie Russell of Johnson City, Tenn., at Huntington, W. Va., April 25.

Benjamin Huger Rutledge, Jr., Charleston, S. C., to Miss Eleanor Louise Oliver of Baltimore, May 28.

Everett A. King to Miss Margaret Simminger, both of Fort Wayne, Ind., May 21.

Charles F. Harmon to Miss Irene E. Medaris, both of Springfield, Ill., May 18.

Deaths

Abraham Zingher, New York, was asphyxiated in the laboratory of the Willard Parker Hospital June 5, when a gas burner became disconnected while he slept in a chair after work. Born in Roumania, in 1885. Dr. Zingher received his medical degree from Cornell University Medical College in 1908, and his Ph.D. from New York University in 1917. He was for several years an intern at Mount Sinai Hospital and chief of the outdoor medical service. He was assistant professor of bacteriology at University and Bellevue Hospital Medical College and clinical professor of pediatrics at the New York Polyclinic; was on the staff of the Willard Parker Hospital; a member of the Medical Society of the State of New York, the American Association of Pathologists and Bacteriologists, of the American Association of Immunologists and various other scientific societies. Dr. Zingher served in France during the World War. As assistant director of the bureau of laboratories of the New York City department of health he had a prominent part in the great work of immunizing school children against diphtheria; he will long be remembered as an arduous worker in various other communities in immunizing children against diphtheria and scarlet fever. He was among the foremost immunologists in the country, and the author of many scientific papers.

Timothy Joseph Shanahan ⊕ Boston; Harvard University Medical School, Boston, 1905; formerly assistant in laryngology, Tufts College Medical School; member of the American Academy of Ophthalmology and Oto-Laryngology and the New England Otological and Laryngological Society; on the staffs of the Somerville (Mass.) Hospital, the Milford (Mass.) Hospital, the Carney Hospital, St. Mary's Infant Asylum and the Massachusetts Eye and Ear Infirmary, Boston; aged 48; died suddenly, May 10, at his home in Somerville, of heart disease.

Percival Butler McCutchon, New Orleans; Tulane University of Louisiana School of Medicine, New Orleans, 1879; member and formerly secretary of the Louisiana State Medical Society; past president and secretary of the Orleans Parish Medical Society; at one time sanitary inspector for the state board of health; aged 75; died, May 12, at the Touro Infirmary, of acute intestinal obstruction.

Henry Isaiah Dorr ⊕ Winchester, Mass.; Jefferson Medical College of Philadelphia, 1883; member of the Medical Society of the State of Pennsylvania, and the Associated Anesthetists of the United States and Canada; also a dentist; Civil War veteran; aged 82; died, April 24, of angina pectoris.

Logan D. Dameron, Phoenix, Ariz.; Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, 1891; member of the Arizona State Medical Association; health officer of Phoenix; aged 69; died, March 11, at Los Angeles, of cerebral hemorrhage.

Samuel E. Mowery, Mechanicsburg, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1895; member of the Medical Society of the State of Pennsylvania; past president of the Cumberland County Medical Society; aged 65; died, May 1, of carcinoma of the liver.

Thomas E. Spalding, Lockport, N. Y.; University of Buffalo School of Medicine, 1901; member of the Medical Society of the State of New York; health officer of Lockport and formerly health officer of Salamanca; aged 47; died, April 27, of coronary embolism and endocarditis.

Henry Lee Crook, Jackson, Miss.; Louisville (Ky.) Medical College, 1891; member of the Mississippi State Medical Association; formerly county health officer; aged 58; died, May 5, at a local hospital, of pulmonary embolism, following a prostatectomy.

John Edward Hollingsworth, Vandalia, Mo.; Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, 1890; member of the Missouri State Medical Association; aged 65; died recently, of multiple sclerosis.

Florena Gates Rich, New Orleans; Tulane University of Louisiana School of Medicine, New Orleans, 1925; on the staff of the Charity Hospital; aged 29; died, May 12, at the Touro Infirmary, of acute leukemia and pericarditis.

Jacob Lorenzo Loutzenhiser, Windom, Kan.; University Medical College of Kansas City, Mo., 1905; also a druggist; served during the World War; aged 44; died, May 2, at a hospital in McPherson, of cerebral hemorrhage.

Thomas Joshua Bennett ⊕ Austin, Texas; Tulane University of Louisiana School of Medicine, New Orleans, 1883; past president of the State Medical Association of Texas; aged 73; died, March 16, of angina pectoris.

Lawrence A. Baker, Middlebourne, W. Va ; Maryland Medical College, Baltimore, 1905; aged 49; died, May 15, at the Ohio Valley General Hospital, Wheeling, of chronic nephritis, chronic cholecystitis and myocarditis

Henry T. Coggeshall, New York; Harvard University Medical School, Boston, 1883, member of the Medical Society of the State of New York; aged 68, died, May 24, of uremia and carcinoma of the bladder.

Elbridge Gerry Minar ⊕ Mannsville, N. Y.; Medical Department of the University of the City of New York, 1883, aged 67; died, May 16, at the Good Samaritan Hospital, Watertown, of heart disease.

Homer Valmore Halbert, Chicago; Hahnemann Medical College and Hospital, Chicago, 1887; formerly clinical professor of internal medicine at his alma mater, aged 68, died, May 28, of angina pectoris.

Richard Clarke Baker, Kansas City, Kan.; State University of Iowa College of Homeopathic Medicine, Iowa City, 1890; member of the Kansas Medical Society; aged 65; died in May, of heart disease

Shepard Bassett Clark, Beaver Dam N. Y ; Bellevue Hospital Medical College, New York, 1889, member of the Medical Society of the State of New York; aged 59, died, May 16, of heart disease

Harry Marbury Tayloe, Hague, Va.; George Washington University Medical School, Washington, D C., 1908; member of the Medical Society of Virginia, aged 51; died, April 21, of pneumonia.

Frank T. Carmack, Iuka, Miss , Vanderbilt University School of Medicine, Nashville, Tenn , 1880, member of the Mississippi State Medical Association; aged 70, died, April 2, of paralysis

Robert L. Pipkin, Springfield, Mo ; Missouri Medical College, St Louis, 1894, member of the Missouri State Medical Association, aged 58, died suddenly, May 4, of cerebral hemorrhage

Edward Scanlon Sullivan, Concord, N H : Harvard University Medical School, Boston, 1919, member of the New Hampshire Medical Society; aged 35, died, April 9, of pneumonia

DeWitt H. McGraw, Binghamton, N Y : New York Homeopathic Medical College and Hospital, 1888, aged 66; died, May 9, of carcinoma of the face

James North ⊕ Margate City, N J ; Jefferson Medical College of Philadelphia, 1880, formerly a dentist, aged 71; died, May 13, of tuberculosis of the larynx

Frank Eugene McElree ⊕ Greenville, Pa ; Western Reserve University School of Medicine, Cleveland, 1909, aged 46; died, April 29, of angina pectoris.

Henry Clay Dunavant, Osceola, Ark ; University of Nashville Medical Department, 1873; Confederate veteran; aged 83, died, May 2, of acidosis

Judson Carey Panter, Chicago; Rush Medical College, Chicago, 1870, aged 77, died, May 6, at his home in Evanston, Ill, of cerebral hemorrhage.

John E. Mapp, Keller, Va ; Washington University School of Medicine, Baltimore, 1868; aged 81; died, April 30, of cirrhosis of the liver.

George Hugh Peddle, Perry, N. Y; College of Physicians and Surgeons, Baltimore, 1891; aged 64; died, May 4, of cerebral hemorrhage.

Harry Doutrick, West Palm Beach, Fla.; Louisville (Ky.) Medical College, 1890; aged 73; died, April 9, of chronic cholecystitis.

Emma J. Welty, Portland, Ore.; Boston University School of Medicine, 1880; aged 70; died, May 2, of carcinoma of the lung

B. Franklin Richards, Denver; California Eclectic Medical College, Los Angeles, 1903; aged 75; died, April 22, of angina pectoris.

Augustus Samuel Clayton, Emerson, Ark (licensed, Arkansas, 1903); Confederate veteran; aged 94; died, May 5, of pleurisy.

Benjamin J. McCleskey, Atlanta, Miss. (licensed, Mississippi, year unknown); aged 81; died, May 11, of heart disease.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL'S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

THE FLORAZONA FRAUD

The Post Office Debars Another Fake "Fat Cure" from the United States Mails

On May 24, 1927, the Postmaster General issued a fraud order against the Florazona Corporation of New York City, debarring it from the use of the mails, and notifying postmasters to return to their senders all letters addressed to the Florazona Corporation, with the word "Fraudulent" plainly written or stamped on the outside of such letters.

"Bathe and Grow Thin. Be Fashionable. Be Healthy. Be Comfortable."

"Lose a pound a day."

"Simply dissolve Florazona, a fragrant powder in your bath, and ½ lb. to 1 lb. of excess fat just melts away through the pores!"

"This great scientific European gland discovery is recommended by physicians, nurses and thousands of delighted users. Contains no epsom salts or alum"

Reduce!
...A POUND A DAY NATURE'S WAY
FLORAZONA
Absolutely Harmless
Money Back
Reduce!
8 to 15 pounds in only 2 weeks
No Exercise, No Diets, No Drugs
FLORAZONA

These and similar blurbs introduced to the "stylish-stouts" the latest piece of hokum in the "obesity cure" field. It is hard to understand how the public can be so ignorant of the most elementary facts of physiology as to believe that obesity may be reduced by putting something in the bath water. Yet the perennial popularity of this particular type of "obesity cure" shows that such ignorance is common.

On March 23, 1927, the Florazona Corporation of New York City was called on by the Post Office department to show cause why a fraud order should not be issued against it. The case came up for hearing on May 16, when Mr. Jacob L. Grubel, a New York attorney, appeared in Washington to defend the concern. The promoters of the Florazona enterprise were not present, nor were any witnesses produced by their counsel.

It was brought out at the hearing that the Florazona Corporation was incorporated under the laws of the state of New York in 1922. The capital stock, consisting of 150 shares of no par value, was owned equally by M. Rosenberg, president and originator of the business, and M. Rubin, secretary and treasurer of the concern. These men operated the business with the assistance of one employee; no physicians, chemists or pharmacists were connected with the Florazona Corporation. The promoters admitted that the yearly advertising cost was estimated at $7,000 and the gross receipts were approximately $20,000 annually.

Florazona, when analyzed by the federal chemists in the Bureau of Chemistry, was found to be essentially sodium thiosulphate (the "hypo" of the photographers), with a small amount of baking soda and a trace of iodides and perfume. It was shown that the package of Florazona, which sold for $3.50, could be manufactured for about 17½ cents.

As is common in the advertising of fat-cure swindles, the advertisements stressed the claim that, when using Florazona, it was unnecessary to exercise or to diet. The Florazona slogan was: "No Exercise—No Diet—No Drugs." Yet, as is also usual in the sale of such fakes, after the purchaser had paid her money, she found that dieting was suggested. Thus:

> "Do not eat fat meats. Substitute bran, whole wheat or rye bread for white bread. . . . Cut down on sweets and candy."

The advertising booklet of the Florazona concern contained what purported to be a number of testimonials. None of these were dated, nor were the names of the persons who were supposed to have given them shown. The Post Office inspector who looked into this fraud was given what was claimed to be the correct names and addresses of some of the persons who had written these alleged testimonials. He communicated with them and each person who replied to the inspector's inquiry stated that she did not give any testimonial to the concern.

Dr. L. F. Kebler, physician and drug expert, testified in behalf of the government, and stated in effect that Florazona was absolutely worthless as a fat reducer. This testimony was not controverted in any way by the respondents. In view of this, Judge Horace J. Donnelly, solicitor for the Post Office Department, recommended in his memorandum to the Postmaster General that a fraud order be issued. It was issued as stated.

Correspondence

THAYER, CARROLL AND LAZEAR

To the Editor:—In the too generous editorial comment about me (The Journal, May 28, p. 1717), reference is made to my association with Carroll. It was not with Carroll but with my dear friend Lazear that I worked on the cultivation of the malarial parasites in *Anopheles maculipennis*. Lazear was a warm friend and associate. While I had met Carroll on a number of occasions, I had had little association with him before the work of the Yellow Fever Commission.

Reed, of course, was a warm friend of all of us who were at the Johns Hopkins Hospital in the year '90-'91. His keenness, his enthusiasm, his ability made a great impression on all of us, and during the few months that he spent in residence at the hospital he endeared himself greatly to every one.

It is one of my pleasantest memories that Reed was a member of Welch's postgraduate class in pathology to which in the winter of 1890-1891 I gave a few talks on the methods of examination of the blood. I confess that I have boasted on various occasions of having taught Reed how to examine blood, and have been proud to shine by the reflected light.

W. S. Thayer, M.D., Baltimore.

THE DUODENAL BUCKET

To the Editor:—In The Journal, March 19, I published a letter in which I had occasion to criticize Dr. Sylvan D. Manheim for failing to give me proper credit while using a bucket which I innovated as a basis for his improvement.

For the information of your readers and in justice to Dr. Manheim and myself, I wish to state that the dispute was referred for arbitration to a committee of three physicians from Mount Sinai Hospital who have decided that while I was first in the field with my bucket there was no evidence to show that Dr. Manheim deliberately infringed on my rights.

Moses Einhorn, M.D., New York.

"NEW BLOOD CONSTITUENTS"

To the Editor:—In the editorial entitled "New Blood Constituents" (The Journal, May 7, p. 1484), there appears a sentence from which it might be inferred that glutathione was found in blood for the first time by Brand and Sandberg. Glutathione in blood and its unquestionable identity with glutathione from other sources was first established by H. F. Holden working in the laboratory of Sir F. G. Hopkins at Cambridge (Holden, H. F.: *Biochem. J.* **19**:727, 1925).

Erwin Brand, Ph.D.,
Marta Sandberg, Ph.D.,
Division of Laboratories, Montefiore
Hospital, New York.

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

THE CUNNINGHAM TANK TREATMENT

To the Editor:—I have been questioned recently in regard to a new treatment for diabetes, which, I believe, is in vogue in Kansas City. This treatment is described as a large chamber, somewhat like a calorimetric chamber, in which the patients live for a period of two or three weeks, and during that time they are supplied with air containing a high percentage of oxygen. I imagine that much of their popularity is due to the supposed cure of a prominent manufacturer, and plans are being made to erect such tanks in Cleveland. The theory advanced is that the high content of oxygen circulated in the blood causes regeneration of the defective elements of the pancreas. Have you any information on this subject? If so, I would appreciate it.

W. M. Sheppe, M.D., Wheeling, W. Va.

Answer.—Doubtless, the alleged new treatment is that used by Dr. O. J. Cunningham of Kansas City, Mo. For some eight years Dr. Cunningham has been treating certain conditions by putting patients in a tank, under air pressures varying from 10 to 50 pounds to the square inch above ordinary atmospheric pressure. Patients are kept in the tank from a few hours to a month. Dr. Cunningham's thesis is that diabetes mellitus, pernicious anemia and carcinoma are due to pathogenic bacteria of the anaerobic type, and that the oxygen content of the tissues is greatly increased when the patients are put in the tank containing the compressed air. Hence, in the doctor's opinion, the compressed air treatment is curative in certain cases of diabetes mellitus, pernicious anemia and even in some cases of apparently hopeless carcinoma.

We do not know of any independent work that has been done to substantiate Dr. Cunningham's observations, and the only publication that Dr. Cunningham himself has made seems to have been a short article in the April, 1927, issue of *Anesthesia and Analgesia*. From material that has come to our attention during the last few years, there is reason to believe that Dr. Cunningham has allowed enthusiasm to run away with judgment.

DERMATITIS VENENATA

To the Editor:—Any suggestion regarding the treatment of this case will be greatly appreciated: A woman, aged 40, Scotch, with one healthy child and no miscarriages, has had for the last two years, previous to the onset of menstruation, a condition closely resembling dermatitis venenata on both hands, sharply demarcated above the wrists. There is also bilateral tenderness over the region of the ovaries. As menstruation becomes well established, the local conditions gradually disappear. No abnormality of the pelvic organs has been observed. All treatment, including local (on the hands), organotherapy and sedatives, has failed to prevent the monthly recurrences. What is your opinion of autohemotherapy (intramuscular reinjection of the patient's own blood) during the height of an attack, or of irradiation or removal of ovaries? Please omit my name.

M.D., Chicago.

Answer.—A condition resembling dermatitis venenata, sharply limited to the hands and wrists, is likely to be dermatitis venenata but due to external irritants, the finding of which may be very difficult. A careful search should be made for them, and local treatment based on this assumption should be instituted The only internal disease in which this sharply defined dermatitis on the hands is likely to occur is pellagra There is no good reason to believe that such cases of dermatitis are ever due to ovarian dysfunction Radical treatment directed to the ovaries simply on a surmise based on the fact that the condition is apparently worse about the time of menstruation and that there is tenderness over the ovaries would be a grave proceeding on the weakest assumptions, and would be unwarranted practice Autohemotherapy has very little reputation among conservative dermatologists in such conditions

HAIR DYE

To the Editor —In The Journal, Jan 2, 1926 page 60, a formula for a hair dye using henna leaves was given I have tried this formula and find that when I use ammonia water as recommended to make a darker stain the hair fails to take the dye at all I shall appreciate it if you can tell me where the fault is I wish to make a dye that is darker than what henna alone will make yet I desire that it be harmless and will not stain the scalp Please omit my name

M D, Indiana

Answer —The dye should be applied as a wet dressing to hair that is already wet, and allowed to remain several hours Repeated applications are necessary for much effect A very small amount of ammonia should be added About 1 5 per cent of 10 per cent ammonia solution seems to be as helpful as a larger amount

TREATMENT OF PARALYSIS AGITANS

To the Editor —Could you suggest something to relieve the drawing sensation and spasticity of muscles in Parkinson s disease? The patient has been receiving morphine Phenobarbital causes complete paralysis The heart is very irritable to morphine Kindly omit my name

M D, Washington

Answer —Of all drugs, scopolamine hydrobromide is the most satisfactory in the treatment of the tremor and rigidity of Parkinson's disease If it causes so much dilatation of the pupils as to interfere with accommodation, it may be discontinued one day a week or oftener If too much dryness of the mouth is induced, pilocarpine may be given with it

USE OF TUBERCULIN

To the Editor —Is there any recognized treatment with tuberculin such as administration for a tonic effect, for any building up properties it may possess or as a prophylactic against tuberculosis? Is there any authority whatever for using it in this manner? Please omit name

M D, Ohio

Answer —The use of tuberculin has been generally abandoned in the treatment of tuberculosis of the lungs There are still some who believe that tuberculin has the values attributed to it by the earlier workers in the field However, there is no clinical proof that tuberculin possesses tonic or prophylactic properties

FLETCHERIZE"

To the Editor —What was the original meaning of the term 'to fletcherize'?

H S Hoffman, M D, Washington, D C

Answer —According to the Standard Dictionary, fletcherize means to masticate to the point of complete pulpefaction" Fletcherism is "a theory, advocated by Horace Fletcher, that perfect health requires and is maintained by complete mastication or a chewing of the food into pulp before it is swallowed" Fletcherism became a fad and consequently was overstressed For a time however, some genuine investigation was done along the lines suggested by Fletcher This side of the subject is outlined in 'The New Dietetics," by John Harvey Kellogg, Modern Medicine Publishing Company, Battle Creek Mich, 1921, beginning on page 80

DRESSING FOR BURNS'

To the Editor —The following formula is given in answer to numerous inquiries with reference to my article Dressing for Burns (The Journal, May 7, p 1483) Four ounces of pure gelatin dissolved in 1 gallon of water will moisten quite a quantity of gauze After the gauze is dried, it is immersed for a few minutes in solution of formaldehyde U S P, diluted to one half strength, to fix the gelatin The gauze is then washed, dried, packaged and sterilized Any good hospital can sterilize the gauze, as it is not injured by autoclaving

Harry S Fist, M D, Los Angeles

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama Montgomery, July 12 15 Chairman Dr S W Welch Montgomery

Arizona Phoenix, July 5 6 Sec, Dr W O Sweek, 404 Heard Bldg, Phoenix

California San Francisco, June 27 30 Sec, Dr Charles B Pinkham 908 Forum Bldg, Sacramento

Colorado Denver, July 5 Sec, Dr David A Strickler, 1011 Republic Bldg, Denver

Connecticut Hartford, July 12 13 Sec, Dr Robert L Rowley, 79 Elm Street Hartford

Delaware Wilmington, June 21 23 State Society and Homeopathic Pres Dr H W Briggs, 1026 Jackson St Wilmington

District of Columbia July 12 Sec, Dr Edgar P Copeland, Suite 110, 1801 Eye Street Washington

Florida Tampa, June 13 14 Sec, Dr Wm M Rowlett, Box 603, Tampa

Hawaii Honolulu, July 11 14 Sec, Dr James A Morgan, Young Bldg, Honolulu

Illinois Chicago, June 28 30 Supt of Regis, Mr V C Michels, Springfield

Indiana Indianapolis, June 21 23 Sec, Dr I M Shanklin, 421 State House Indianapolis

Kansas Topeka June 21 Sec, Dr A S Ross, Sabetha

Kentucky Louisville June 21 23 Sec, Dr A T McCormack, 532 W Main Street Louisville

Maine Bangor, July 5 6 Sec, Dr Adam P Leighton, Jr, 192 State Street, Portland

Maryland Regular, Baltimore, June 21 24 Sec, Dr Henry M Fitzhugh 1211 Cathedral St Baltimore Homeo Baltimore, June 14 Sec Dr J S Garrison, 517 Old Orchard Rd, Ten Hills Baltimore

Massachusetts Boston, July 12 14 Sec, Dr Frank M Vaughan, 144 State House, Boston

Michigan Ann Arbor June 14 16 Detroit, June 20 22 Sec, Dr Guy L Connor, 707 Stroh Bldg, Detroit

Minnesota Minneapolis, June 21 23 Sec, Dr A L Comstock, 636 Lowry Building St Paul

Mississippi Jackson, June 21 22 Sec, Dr Felix J Underwood, Jackson

Missouri St Louis, July 13 15 Sec, Dr James Stewart, Jefferson City

New Jersey Trenton June 14 15 Sec, Dr Charles B Kelley, 28 West State Street Trenton

New York Albany Buffalo, New York and Syracuse, June 27 30 Chief, Professional Examinations, Mr Herbert J Hamilton, State Education Bldg, Albany

North Carolina Raleigh, June 21 Sec Dr John W MacConnell, Davidson

North Dakota Grand Forks, July 5 8 Sec, Dr G M Williamson Grand Forks

Oregon Portland, July 5 7 Sec, Dr M K Hall 816 Pittock Block Portland

Pennsylvania Philadelphia and Pittsburgh, July 5 9 Dir Professional Education Bureau Mr C D Koch, Harrisburg

Rhode Island Providence, July 7 Sec, Dr B U Richards, Providence

South Carolina Columbia, June 28 Sec, Dr A Earle Boozer, 505 Saluda Ave, Columbia

South Dakota Huron, July 19 Dir Medical Licensure, Dr H R Kenaston, Bonesteel

Tennessee Memphis, Nashville and Knoxville, June 17 18 Sec, Dr A B DeLoach, 733, Medical Arts Bldg, Memphis

Texas Austin, June 21 23 Sec, Dr T J Crowe, 918 Mercantile Bank Bldg Dallas

Vermont Burlington, June 22 24 Sec, Dr W Scott Nay, Underhill

Virginia Richmond, June 15 18 Sec, Dr J. W Preston, Box 444, Richmond

Washington Seattle, July 11 Basic Science Examination, Seattle, July 7 8 Ass't Director, Mr George L Berger, Olympia

West Virginia Martinsburg, July 26 Commissioner, Dr W T Henshaw, Charleston

Wisconsin Milwaukee, June 28 30 Sec Dr Robert E Flynn, La Crosse Basic Science Board Milwaukee, June 27. Sec, Dr M F Guyer, Madison

California Reciprocity Report

Dr Charles B Pinkham, secretary of the California Board of Medical Examiners, reports that 71 candidates were licensed by reciprocity from Jan 1 to March, 1927 The following colleges were represented

College	Year Grad	Reciprocity with
LICENSED BY RECIPROCITY		
University of Colorado School of Med (1909) Idaho,	(1911)	Wyoming
Yale University School of Medicine	(1907)	Connecticut
school of Med (1913) Texas,	(1924)	Mass
cine and Surgery	(1917)	Florida
edical College	(1899)	Idaho
rgs, Chicago (1904), (1906),	(1907)	Illinois
ege and Hospital, Chicago	(1898)	Missouri
Chicago	(1909)	Illinois
Med School (1909) Iowa,	(1910)	Illinois
Rush Medical College (1899) Utah,	(1901)	Nebraska
(1903), (1907), (1909), (1915) Illinois		
University of Illinois College of Medicine	(1912)	Illinois
Keokuk Medical College	(1897)	Kansas

State University of Iowa College of Med	(1897), (1912)	Iowa
(1898) South Dakota		
University of Kansas School of Medicine	(1911)	Kansas
Hospital College of Medicine	(1891) Iowa, (1906)	Kentucky
Kentucky School of Medicine	(1896)	Missouri
University of Louisville School of Medicine	(1909)	Kansas
Baltimore Medical College	(1904)	Illinois
Johns Hopkins Univ Med Dept	(1905) Illinois, (1924)	Maryland
Harvard University	(1911)	Michigan
Detroit College of Medicine and Surgery	(1918)	Michigan
University of Michigan Medical School	(1900)	Michigan
University of Michigan Homeopathic Medical School	(1906)	New York
University of Minnesota Medical School	(1904)	N Dakota
(1922) (1923) Minnesota		
American Medical College St Louis	(1908)	Missouri
St Louis College of Physicians and Surgeons	(1906)	Idaho
St Louis University School of Medicine	(1913)	Illinois
University of Missouri School of Medicine	(1903)	S Dakota
Washington University School of Medicine	(1913)	Missouri
John A C ge	(1898) (1913)	Nebraska
Universit f Medicine	(1924), (1925)	Nebraska
Columbia Phys and Surgs	(1898)	New York
New York l and Flower Hosp	(1921)	New York
University of Med	(1914), (1921)	New York
University of Medicine	(1916)	W Virginia
Western l ool of Medicine	(1902)	Indiana
University of Oregon Medical School	(1915) Oregon, (1922)	Washington
Hahnemann Medic hiladelphia	(1918)	Illinois
Jefferson Medical (	(1907)	Utah
(1910) Orego		
Medico Chirurgical College of Philadelphia	(1898)	Penna
University of Pennsylvania School of Med	(1896), (1902)	Penna
Western Pennsylvania Medical College	(1906)	Penna
Vanderbilt University School of Medicine	(1923)	N Carolina
Baylor University College of Medicine	(1925)	Texas
University of Vermont College of Medicine	(1908)	New Hamp
Medical College of Virginia	(1906)	Illinois

Book Notices

De Lamar Lectures, 1925 1926 By David Marine, Alice Hamilton, Francis Carter Wood, Frederick W Sears Thomas Adams, W G Smillie, Edward R Baldwin, Louis I Dublin, Joseph Goldberger, C R Stockard, Horace Lo Grasso, Robbins B Stoeckel Sir Arthur Newsholme The Johns Hopkins University School of Hygiene and Public Health Cloth Price, $5 Pp 220, with illustrations Baltimore Williams & Wilkins Company, 1927.

In 1920, the School of Hygiene and Public Health of Johns Hopkins University instituted its lectures in hygiene to carry out the wishes expressed by the will of Joseph R De Lamar to give to the people of the United States generally the benefits of increased knowledge concerning the prevention of sickness and disease, and also concerning conservation of health by proper food and diet It is impossible in the space of a brief review to list all these lectures or to discuss them critically They are all by writers recognized as experts in the fields concerned, and they discuss such important problems as industrial disease, cancer, rural hygiene, longevity, the body-constitution, prevention of accidents and similar topics The importance of these lectures is such that one would wish some plan had been devised for much wider circulation than is likely to be secured by mere collection in book form The extension of the material into the public press or into periodical literature would accomplish far more along the lines in which the donor wished, no doubt, to direct them

Der Baranysche Zeigeversuch Seine physiologischen Grundlagen und klinische Methodik Von Dr med Ernst Wodak Paper Price, 3 marks Pp 79, with 26 illustrations Berlin Urban & Schwarzenberg, 1927

This brochure covers in considerable detail the pointing method of Barány The author states, however, that he does not discuss the fallacies of the reaction but reserves them for a future date In discussing the psychophysiologic principles underlying the pointing reaction together with the labyrinthine factors, the author concludes that although the pointing reaction is of great clinical value it is not yet possible to localize definitely a lesion of the cerebellum by means of the reaction itself It would require a great deal of work to determine these facts After the first publications by Barany it was thought that the definite localization of cerebral lesions could easily be arrived at with the pointing reaction, but these must be held with considerable reservation This little book is a valuable addition to the study of the subject and will well repay those who are doing otologic and neurologic work to evaluate the pointing reaction It is true of many discoveries in the realm of medicine that at first too much is expected of a procedure that requires years of careful study on the part of numerous investigators before the real facts are thoroughly tested and definite conclusions drawn which will be of value in diagnosis and in the relief of diseases in various parts of the body Much credit is due a man like Barany for this pioneer work in a difficult field

Behaviorism By John B Watson Lecturer, the New School for Social Research Cloth Price, $3 Pp 251 New York W W Norton & Company, Inc, 1925

Psychology What It Has to Teach You About Yourself and Your World By Everett Dean Martin Cloth Price, $3 Pp 302 New York W W Norton & Company, Inc 1924

Dr J B Watson, noted throughout the country as a leader of the behavioristic school of human conduct, here presents in twelve lectures for the general public a guide to the entire subject The style is simple and direct, but the material is presented with sufficient scientific reference to establish clearly the basis on which the behavioristic school rests its banners The sections on the technic of the behavioristic school and its interpretations of human actions and habits are of great interest, particularly as they relate to everyday life A striking chapter is that devoted to personality, with reference to the means that have been taken for determining suitable occupation and similar subjects Several paragraphs on fakers in psychology expose to public gaze the type of charlatan who is scheming to thrive on the newer psychology

The volume by Everett Dean Martin is an attempt to tell a public audience in twenty lectures how psychology as a science is related to practical affairs in human life It is concerned not only with the older psychology, but also with the freudian views, the work of MacDougall, of William James and the behavioristic scheme of Dr Watson The section on propaganda and public opinion is both a guide to the mob mind and a warning as to how the demagogue uses it for his personal interests Again and again physicians have been told of the importance of the mind in relation to disease and of the necessity for the understanding of the fundamental facts of psychology to the progress of medicine The volume by Martin may be recommended as one by which the knowledge concerned may be easily acquired

Die Croon Vorlesungen uber Aufbau und Abbau des Nervensystems (Croonian Lectures on the Evolution and Dissolution of the Nervous System) Von J Hughlings Jackson Uebersetzt von Otto Sittig Paper Price, 6 60 marks Pp 137 Berlin S Karger, 1927

As these lectures were delivered by Hughlings Jackson in 1884, the German translation seems to be a bit belated However, the fact that they have been translated is not only a tribute to the genius of Jackson but also a decided credit to present-day German neurology Unfortunately, the writings of Jackson are not particularly lucid and his style not especially attractive and consequently his writings have been a long time in coming into their own This translation is accompanied page for page by the English text and it is to be hoped that not only many German neurologists but also many of those in England and America will profit by this publication of the lectures of one of the most remarkable thinkers who ever adorned the annals of medicine

The Metabolism of the Fasting Steer By Francis G Benedict, Director, Nutrition Laboratory, Carnegie Institution of Washington, and Ernest G Ritzman, Research Professor in Animal Nutrition, New Hampshire Agricultural Experiment Station Paper Pp 246, with illustrations Washington Carnegie Institution, 1927

This monograph presents a detailed study of a problem of practical as well as theoretical importance The practical aspect of the question is indicated in the following quotation from the introduction "In the management of domestic live stock, farmers of the United States have been educated to believe that regular and liberal feeding forms the basis of good economic practice This belief has not uncommonly led to the inference that animals deprived entirely of food, even for a relatively short time, would endure physical hardship, suffering and injury The error of such a conclusion is best illustrated by a consideration of the life habits of wild animals, such as the deer, which is also a ruminant Deer pass through long periods of deprivation, when food is scant, or sometimes entirely lacking, and on the whole survive in excellent shape, with remarkable vigor, unimpaired by such experiences." The steers were subjected to varying types of undernutrition, including complete fasting except for water, of periods of from four to fourteen days. After the second day of fasting no particular irritation or craving for food was shown, no sign of lacking vitality and energy, the steers appearing as strong and healthy even on the last day of the *fourteenth day fast* as in the earlier days of the fasting, but the fasting animals spent the larger portion of the time lying down. Rumination ceased after the second day. There was reduction in the basal metabolism progressively during the fast, and after the third day of complete fasting the respiratory quotient fell from the normal of unity to the lower level of 0.70, showing that the energy of the steers was derived solely from fat. There was no lowering of the body temperature produced by fasting. This study on fasting steers reveals essentially nothing new in comparison with data previously obtained on fasting men and other animals. A striking difference, however, appears in the steer, in comparison with other animals, in the high basal metabolism as figured on the square area of body surface. In the steer this is around 1,300 calories per square meter of body surface daily, in comparison with the average of 800 or 900 calories for man and other animals.

Le sixième sens. (Sens génésique). Organes de la génération. Fonction sexuelle. Aberrations génitales. Curiosités relatives aux seins. Par Docteur Cabanés. Cloth. Price, 12 francs. Pp. 259. Paris: E. le François, 1927.

Rabelaisian curiosities from a medical angle form the text of this book. The extraordinary birth of Gargantua is not vouched for by Dr. Cabanés, but he is quite positive as to a case reported in 1899 by Dr. Lermoyez of an almost equally active auditory canal. We learn from the book that the ancients went unclothed without shame; that the Jews, to avoid the heavy taxes levied on them by the early Romans, resorted to surgery to hide the marks of their circumcision which proclaimed them Jews; that men have been known to marry up to the age of 111 years; that Joseph Surrington, a Norwegian who died in 1797 at the age of 160 years, had become a father only nine years before his death; that girls of a tender age have given birth to children—the youngest mother recorded being 9½ years old; that it is the custom in certain countries for the mother of a new-born infant to rise the first day and for the father to take her place with the child, while neighbors and friends call to inquire for the father's health and to express their sympathy for his suffering. These are some of the less obscene curiosities related by Dr. Cabanés.

Preventive Medicine and Hygiene. By Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Harvard Medical School. With Chapters upon Mental Hygiene. By Abraham Myerson. Sewage and Garbage. By Gordon M. Fair. Vital Statistics. By John W. Trask. Statistical Methods. By Carl R. Doering. Conservation of Vision. By J. Herbert Waite. Fifth edition. Cloth. Price, $10. Pp. 1458, with 157 illustrations. New York: D. Appleton & Company, 1927.

The fifth edition of this volume is necessitated by numerous advances that have been made in the field of preventive medicine, particularly as concerns such topics as amebic dysentery, scarlet fever, epidemic encephalitis, tularemia, rickets and pellagra, and also because more and more attention is being given to mental hygiene. As Dr. Rosenau emphasizes in his preface, "The new subjects considered comprehensively for the first time in this book are the psychanalytic approach to sex hygiene, the prevention of cancer, the conservation of vision, periodic physical examinations, flukes and their relation to disease, granuloma inguinale, balantidial dysentery; also resuscitation, gas masks, statistical methods and practical points in public health administration." This book established itself as a standard in its field when first published, and succeeding editions have been quite up to the mark of previous ones. The collaborators are responsible for much additional material. In every way, the volume is an adequate reference to its subject.

Books Received

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits. Books listed in this department are not available for lending. Any information concerning them will be supplied on request.

Tuberculosis of the Lungs. A Practical Guide for General Practitioners. By H. Hyslop Thompson, M.D., D.P.H., County Medical Officer of Health and County Tuberculosis Officer for Hertfordshire, and A. P. Ford, M.R.C.S., L.R.C.P., D.P.H., Clinical Tuberculosis Officer and Deputy County Medical Officer of Health for Hertfordshire. Cloth. Price, $4. Pp. 179, with 30 illustrations. New York: William Wood & Company, 1927.

Another British guide to tuberculosis.

The Mystic Rose: A Study of Primitive Marriage and of Primitive Thought in Its Bearing on Marriage. By Ernest Crawley. In two volumes. Second edition revised and greatly enlarged by Theodore Besterman. Cloth. Price, $10 per set. Pp. 715. New York: Boni & Liveright, 1927.

Translation of ethnologic companion to Westermarck's history of marriage.

Handbuch der Haut- und Geschlechtskrankheiten. Von J. Jadassohn. Band I.—1 Teil. Anatomie der Haut. Von B. Bloch, F. Pinkus, und W. Spalteholz. Paper. Price, 87 marks. Pp. 564, with 390 illustrations. Berlin: Julius Springer, 1927.

First part of new German system of dermatology and venereal disease.

To Begin With, Being Prophylaxis Against Pedantry. By Raymond Pearl, Director of the Institute for Biological Research, Johns Hopkins University. Cloth. Price, $1.50. Pp. 96. New York: Alfred A. Knopf, 1927.

A biometrician's belief as to the fifty books we all should know—and why.

Applied Pharmacology. By A. J. Clark, M.C., B.A., M.D., *Professor* of Materia Medica and Pharmacology in the University of Edinburgh. Second edition. Cloth. Price, $4. Pp. 430, with 54 illustrations. Philadelphia: P. Blakiston's Son & Company, 1927.

New edition after three years, revised according to new discoveries.

The Woman a Man Marries: An Analysis of Her Double Standard By Victor Cox Pedersen, A.M., M.D., F.A.C.S. Cloth. Price, $3 net. Pp. 276. New York: George H. Doran Company, 1927.

An attack on ignorance of sex-life and on woman as a parasite.

Notes on Malayan Culicidae. By A. T. Stanton, M.D., F.R.C.P., D.P.H. Studies from the Institute for Medical Research, Kuala Lumpur, Federated Malay States. No. 20. Cloth. Pp. 94, with illustrations. London: John Bale, Sons & Danielsson, Ltd., 1926.

The Fifth Avenue Hospital Clinics. First Series Based on the Material from the Semi-Monthly Staff Meetings. Edited by Joseph H. Fobes, M.D., and others. Cloth. Price, $5. Pp. 336, with 67 illustrations. New York: Paul B. Hoeber, Inc., 1927.

Report to the Mayor of the Poisonings from the Consumption of Alcohol or the Denatured Alcohol During the Years 1925-1926. By Charles Norris, M.D., Chief Medical Examiner of the City of New York. Paper. Pp. 14. New York, 1927.

Handbuch der Haut- und Geschlechtskrankheiten. Von J. Jadassohn. Band XIX. Kongenitale Syphilis. Von G. Alexander und anderen. Paper. Price, 48 marks. Pp. 374, with 95 illustrations. Berlin: Julius Springer, 1927.

Les cancers et leurs complications. Étude clinique de leur évolution. Par Maurice Renaud, *médecin des* Hôpitaux de Paris. Paper. Price, 30 francs. Pp. 319, with 28 illustrations. Paris: Masson & Cie, 1927.

Tuberculose pulmonaire. Tuberculose des séreuses. Par le docteur Pierre Pruvost, médecin des hôpitaux de Paris. Paper. Price, 30 francs. Pp. 446, with 49 illustrations. Paris: Gaston Doin & Cie, 1927.

Les stupéfiants. Par le docteur R. Porak, professeur aux écoles de médecine de Téhéran et de Changai. Paper. Price, 18 francs. Pp. 348, with 43 illustrations. Paris: Gaston Doin & Cie, 1927.

Richland Anti-Tuberculosis Association. Tenth Annual Report of the Board of Directors, Columbia, South Carolina, 1926. Paper. Pp. 19. Columbia, 1926.

Medicolegal

Declaration of Insanity Under Unconstitutional Law

(Torres et al v Gersdorff (Texas), 287 S W R 668)

The Court of Civil Appeals of Texas says, in this action to try title to certain real estate where it was a question whether one Mary Torres was insane in July, 1923, that it is a presumption of law that all men are sane, and the burden rests on the party pleading insanity to establish such insanity, but, when it is proved that a person has been legally adjudged to be insane, the presumption of insanity will continue until an adjudication of a return to reason has been made The burden of showing the restoration of reason rests on him who asserts it Mary Torres may have been insane in 1915, when the court in its judgment found her to have been insane, but, unless there was a legal adjudication of the fact of insanity by a constitutional tribunal under constitutional procedure, the judgment did not avail, and, in the absence of such judicial action, the legal presumption of sanity attaching to all citizens would still attach to her

It was alleged that Mary Torres was adjudged to be insane by the county court of Bexar County on or about July 21, 1915 The only law in effect at that time authorizing the adjudication of insanity was the act of 1913, which provided for a commission, composed in whole or in part of physicians, to be appointed by the county judge, to whom was given the power to pass on the sanity or insanity of persons brought before it That law was subsequently held by the Supreme Court of Texas to be unconstitutional No other law was in effect when Mary Torres was declared a lunatic, and consequently she must have been declared a lunatic under that unconstitutional law Her incarceration in the insane asylum was therefore illegal and void The declaration of the trial court in its orders and judgment could have had no higher authority than the illegal and void report by the commissioners appointed by the county judge in 1915 All the presumptions must be indulged that Mary Torres was confined in the insane asylum under the terms of the act of 1913, because it was not declared unconstitutional by the supreme court until 1917 The admissions of the guardian ad litem as to the state of mind of his ward could have no force or effect in a court of law, equity and justice He had no authority to admit any fact that would undermine and destroy the defense of the ward that he had been appointed to defend

Typhoid Contracted in Epidemic Not Compensable

(Pattiani v State Industrial Accident Commission et al (Calif), 250 Pac R 864)

The Supreme Court of California, in affirming an order of the state industrial accident commission denying the petitioner compensation, says that, in pursuance of his employment he left San Francisco, Nov 2, 1924, visited a number of cities, returning to San Francisco, Dec 2, 1924 While in the city of New York he lived at a well known hotel for five days and visited a number of business establishments within the scope of his instructions He testified that while there, on or about November 17, and also about three days later, he ate raw oysters at the hotel After leaving New York he found himself ill, the illness continuing until he arrived in San Francisco and for some time thereafter, his ailment being diagnosed as typhoid He applied to the industrial accident commission for an award, and the commission found that while he was in New York he contracted and became ill with typhoid, that at the time of his visit in that city there was prevalent in that locality an epidemic of typhoid, that the evidence did not establish as a fact that the epidemic was caused or aggravated by contaminated oysters, that the fact that he was required by his employment to visit or sojourn in a locality where there was an epidemic or disease did not constitute a special exposure arising out of the employment, but was in fact an exposure or risk of the commonalty in general, and not peculiar to or characteristic of the employment Based on that finding the commission denied an award

The effect of certain denials of writs of review by this court is that of holding that in order to a recovery of an award by an employee who, in the course of the performance of his duties as such, whether in the immediate place of his employment or in whatever place he may be in pursuance of his employer's directions, contracts a contagious or infectious disorder, he must, in order to make such recovery, establish the fact that he was subjected to some special exposure in excess of that of the commonalty, and in the absence of such showing of special exposure the illness or death of the employee can not be said to have been proximately caused by injury arising out of his employment In the instant case no direct connection between the employee and his infection with the disease of typhoid was shown, on the contrary, his attempted proof of such connection was negatived by the commission in its finding that the evidence did not establish the fact that the epidemic of typhoid in New York was caused or aggravated by contaminated oysters No other direct contact between him and the existing epidemic of typhoid in New York during the brief period of his visit there being shown, this court is of the opinion that the commission was correct in holding that the evidence before it was insufficient to show a special exposure arising out of the employment and that the mere fact that there was an epidemic of typhoid in New York during the period of his visit there constituted an exposure or risk of the commonalty in general and was not peculiar to or characteristic of his employment, and for that reason compensation to him was properly denied

In arriving at its conclusion in the instant case this court is not to be understood as announcing a rule which might be applicable to the case wherein an employer directs his employee to go to a place wherein, with the knowledge of the employer there is prevalent an infectious or contagious disease There was no such showing made in the case before the court

An Injury to Patient Not Chargeable to Physician

(Hanners v Salmon (Ky) 288 S W R 307)

The Court of Appeals of Kentucky says that the plaintiff alleged that, eight weeks after his left leg was fractured between the knee and the hip joint and he was taken to a hospital where he received treatment by the defendant, the latter directed that he be removed from the bed and placed in an invalid chair, that on the third day that this was done the leg was broken again, that that was the result of the defendant's unskilful handling of the case, and that the defendant did not use ordinary care and skill in his subsequent treatment The plaintiff testified

> The nurse went to take me out of the bed, and my limb broke over It broke so quickly I never knew how it broke I don't suppose the nurse knew how it broke I can't say whether the nurse supporting me twisted me or how it is, I just didn't know it was done so quickly

That was all the evidence there was as to how the break occurred eight weeks after the first injury, and there was no evidence that any directions which the defendant gave at that time were not the usual or proper instructions The plaintiff did not complain of anything that was done to his leg before the second break occurred There was an absolute want of evidence that the defendant did anything that he should not have done or omitted anything that should have been done The evidence only showed that the plaintiff was left in a very deplorable condition, but it also appeared that before he was injured he had varicocele veins and was over 50 years of age and that he suffered an injury that not infrequently produces in men over 50 years of age the result that followed The well settled rule in such cases is thus stated

> The law accords the medical practitioner the presumption that he has done his duty, and, in a suit for injuries caused by alleged malpractice, the burden is on the plaintiff to prove the want of reasonable and ordinary care or skill However, it is not necessary in an action against a physician or surgeon for unskilfulness or negligence to prove gross culpability on his part, proof of any failure to exercise proper care or any neglect in the discharge of the duty assumed is sufficient Further the burden is

on the complaining patient to prove that the injury complained of resulted from such want of care or skill A bare possibility of such result is not sufficient The burden of proof is not shifted by showing that an unsuccessful result has attended the treatment of the patient by the physician Nor does the unsuccessful result of the case shift from the plaintiff to the defendant the burden of going forward —21 R C L 406

Where the evidence is as consistent with the absence as with the existence of negligence, the case should not be left to the jury —30 Cyc 1588

What should be the rule when it is shown that the result obtained is not the result that may reasonably be expected where ordinary care and skill are used was not presented by the record and was not decided For there was nothing in the evidence showing that the condition in which the patient was left was other than might reasonably be expected, although proper care and skill were used The gist of the action was negligence, and negligence is not shown where only the result appears and this result may as reasonably be the result of other causes as of the want of proper care and skill To hold otherwise would be to place on the defendant the burden of showing the absence of negligence, when the plaintiff had not shown facts sufficient to show negligence The court therefore properly, under the evidence, instructed the jury peremptorily to find for the defendant, and judgment for the defendant is affirmed

Not Liable for Death After Injection of Procaine Hydrochloride

(Bishop v Shurly (Mich), 211 N W R 75)

The Supreme Court of Michigan, in affirming a judgment for the defendant, says that the plaintiff arranged with the defendant at his hospital for the removal of the tonsils of her son aged 19 years When the young man went to the hospital, an assistant to the defendant, instructed by the defendant to administer the anesthetic, gave a local injection of procaine hydrochloride consisting of 2 drachms of the solution of about 0 5 per cent in strength, after which the patient collapsed, and died in less than an hour The plaintiff contended that the contract she had made with the defendant provided that a general, and not a local, anesthetic should be used, and that the contract was breached by the defendant, wherefore, as administratrix of her son's estate, she brought this action to recover the damages the estate sustained by reason of his suffering and death The burden was on the plaintiff to satisfy the jury that her son died from the effects of the injection As the claim was set forth, the burden was also on the plaintiff to prove that cocaine had been administered

The assistant physician was permitted to testify, over the plaintiff's objection, that as the young man was entering the operating room a lady was passing out, that the young man asked what operation had been performed on her, and, on being informed that her tonsils had been removed, asked what anesthetic she had taken, and, when informed that it was a local one, asked why he could not have the same When told that he could, he inquired as to the manner in which it would be administered, which was explained to him, after which he said that he would take the local anesthetic and got into the operating chair used for that purpose When the plaintiff had elicited from the assistant physician facts which showed that a local anesthetic had been used, that the patient soon afterward collapsed, the efforts made to revive him, and that his death occurred in about fifty minutes, the court feels constrained to hold that the defendant was entitled to have the physician fully explain what occurred in the operating room after the patient had been brought there, prepared for the administration of ether That a change in the form of the anesthetic to be used was then made was apparent Why was it made?

The assistant physician was the representative of the defendant, charged by him with the duty to administer the anesthetic Any agreement made by him with the patient relative thereto would be as binding on the defendant as if he made it himself The patient was 19 years of age His father was dead He had a legal right to contract with the defendant for the performance of the surgical operation Such a service is within the meaning of the term "necessaries," for which infants may make binding contracts The contract made by the mother was made for and on behalf of her son It seems clear that he could at any time thereafter change or modify it as he might see fit to do Were this a proceeding wherein the defendant sought to enforce payment for the services rendered by him, under the claim of the plaintiff that she entered into the contract "as guardian for said minor, and for and on his behalf," as set forth in the declaration, it seems clear that his estate only would be liable to pay therefor

The sudden death of the patient was accounted for by the defendant by the presence in his person of the thymus gland In support of that theory the defendant was asked what he would have to say as to the probability of this thymic death having occurred had the general ether anesthetic been applied, instead of having procaine hydrochloride administered, and he answered that he believed the patient would have died just the same A similar question was put to another physician who answered it to the same effect Error was assigned on permitting these questions to be answered over the plaintiff's objection, but there was proof that any sudden shock might cause death in case the thymus gland was still persistent, and the court thinks there was no error in permitting these experts to express an opinion as to whether the use of ether as an anesthetic might produce such a shock There was, of course, no evidence that this gland was persistent in the body of the patient, as no necropsy was had because the mother would not consent to one, when the coroner urged it The death was sudden, and due to some unusual cause A surgeon of forty years' practice testified that there were no symptoms attending the patient's condition after the anesthetic was administered which would indicate or lead him to suspect that this was a death due to the administration of cocaine The court thinks the evidence was admissible in its bearing on the cause of death, and that there was testimony to support the verdict rendered for the defendant

Dying Declarations Confined to Homicide Cases

(Clark v State (Neb), 211 N W R 16)

The Supreme Court of Nebraska, in holding that it was error to permit the introduction of a dying declaration in a trial for sodomy, says that at the early common law dying declarations were admissible in all cases, civil or criminal Later a distinction was evolved and such declarations were received only in homicide cases This has been the general rule in this country for more than a hundred years It has been so long recognized as a rule of evidence that a court may well pause before overthrowing it There is an extensive discussion and a masterful criticism of this rule in 3 Wigmore, Evidence (ed 2), section 1436 The learned author indicts it as a heresy, but concludes the discussion by saying that it should be wholly abolished by legislation The rule has been so generally accepted and its overthrow might lead to such confusion that this court is constrained to adhere to it, and leave the lawmaking body to determine whether or not it shall be revoked What this court now holds is that dying declarations are admissible only in cases of homicide, and then only where the death of the declarant is the subject of the charge.

Society Proceedings

COMING MEETINGS

American Ophthalmological Society, Quebec, Canada, June 27 29 Dr. Emory Hill, Professional Building, Richmond, Va , Secretary.
Maine Medical Association, Portland, June 13 15 Dr B L Bryant, 265 Hammond Street, Bangor, Secretary
Michigan State Medical Society, Mackinac Island, June 14 17 Dr F C. Warnshuis, Grand Rapids National Bank Bldg , Grand Rapids, Secy.
Minnesota State Medical Association, Duluth, June 30 July 2 Dr E A. Meyerding, 11 West Summit Avenue, St Paul, Secretary
Montana, Medical Association of, Missoula, July 13 14 Dr E G Balsam, 222 Hart Albin Building Billings, Secretary
New Hampshire Medical Society, Portsmouth, June 22 23 Dr D E. Sullivan, 7 North State Street Concord, Secretary
West Virginia State Medical Association, White Sulphur Springs June 21 23 Mr Joe W Savage, 303 Professional Building, Charleston, Executive Secretary
Wyoming State Medical Society, Cheyenne, June 27 29 Dr Earl Whedon, Sheridan, Secretary

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to The Journal in America for a period of three days No foreign journals are available prior to 1921, nor domestic prior to 1923 Periodicals published by the American Medical Association are not available for lending, but may be supplied on order Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested)

American Journal of Physiology, Baltimore

80: 1 235 (March 1) 1927

- Interpretation of Intraventricular Pressure Curve on Basis of Rapidly Summated Fractionate Contractions C J Wiggers, Cleveland —p 1
- Are Ventricular Conduction Changes of Importance in Dynamics of Ventricular Contraction? C J Wiggers Cleveland —p 12
- *Effect of Long Continued Ingestion of Zinc Oxide K R Drinker, P K Thompson and M Marsh, Boston —p 31
- *Effect of Zinc on Reproduction and Growth in Albino Rat P K Thompson, M Marsh and K R Drinker, Boston —p 65
- Artificial Hibernation in Woodchuck (Arctomys Monax) S Dworkin and W H Finney, Montreal —p 75
- *Effect on Urinary Output of Water, Chloride, Inorganic Phosphate, Urea and Ammonia of Varying Salt and Acid Content of Water Drunk H L White, St Louis —p 82
- *Unity or Multiplicity of Autacoids of Posterior Lobe of Pituitary W B Draper, Montreal —p 90
- *Anterior Lobe of Pituitary W S Johns, T O O'Mulvenny, E B Potts and N B Laughton, London, Can —p 100
- *Influence of Hydrion Concentration on Vascular Tonicity II Dilating Effect of Lactic Acid and Urea C M Kurtz and C D Leake, Madison, Wis —p 107
- *Induction of Precocious Sexual Maturity by Pituitary Homeotransplants P E Smith, San Francisco —p 114
- Changes of Electrical Conductivity in Beating Tortoise Ventricle D Rapport and G B Ray, Cleveland —p 126
- *Effects of Carbon Monoxide Inhalation on Metabolism F M Walters, Baltimore —p 140
- Effect of Unilateral Labyrinthectomy on Rotational Nystagmus H Laurens and A L Miles, New Orleans —p 150
- *Effect of Anemia and Hemorrhage on Cardiac Output of Dogs V A Blalock and T R Harrison, Nashville, Tenn —p 157
- *Effects of Severe Anoxemia of Short Duration on Cardiac Output of Morphinized Dogs and Trained Unnarcotized Dogs VI T R Harrison and A Blalock, Nashville Tenn —p 169
- Behavior of Dyes in Kidney Tubule of Necturus J G Edwards, Baltimore —p 179
- Effect of Glycine on Metabolism of Isolated Perfused Muscle D Rapport and L N Katz, Cleveland —p 185
- *Susceptibility of Albino Rats to Tetanus Toxin Following Suprarenalectomy J M Rogoff and E E Ecker, Cleveland —p 200
- *Effect of Administration of Excessive Amounts of Water I C H Greene and L G Rowntree, Rochester, Minn —p 209
- Id II C H Greene and L G Rowntree, Rochester, Minn —p 230

Effect of Ingestion of Zinc.—Drinker et al have never observed any significant clinical symptom nor obtained any significant laboratory evidence of harm resulting from the daily ingestion of zinc oxide over long periods of time With the exception of fibrous change in the pancreases of three cats subjected to doses of zinc greatly in excess of any possible human exposure, histologic examination following autopsy has not shown any injury in the organs of experimental cats and dogs attributable to zinc Studies on zinc excretion in zinc fed animals indicate that a small fraction of absorbed zinc leaves the body in the urine, but that the main bulk of it is excreted into the alimentary tract—some of it directly, some of it by the liver into the bile, and possibly some of it by the pancreas—and ultimately leaves the body in the feces The amount of zinc in the urine of zinc fed animals is markedly increased over the normal, though the total amount of zinc in the urine is only a small fraction of the total excreted It is worthy of note that animals excreted abnormal amounts of zinc through the kidneys for months without any histologic evidence of kidney injury A possible connection is suggested between the zinc content and the functional activity of the suprarenals and of the sex glands

Effect of Zinc on Growth.—Thompson et al found that the daily feeding of organic zinc salt solutions (acetate, citrate and malate) or of zinc oxide suspensions in doses of from 2 to 38 mg of zinc to albino rats, not only for many weeks previous to mating, but during pregnancy and lactation as well, did not have any significant effect on the health of the parents, on fertility, or on the health and early growth of the offspring The offspring of zinc fed parents, weaned at 23 days of age and themselves put on daily doses of zinc, grow at a normal rate and to a normal adult size

Effect of Sodium Chloride on Urinary Output.—The effect on the urinary output of water, chloride, inorganic phosphate, urea and ammonia of varying the sodium chloride and acid content of 500 cc of ingested water was determined by White The output of water in the first four hours following the drinking is diminished by increasing the salt content up to 0 9 per cent The output of urea and ammonia is independent of the salt content of the ingested water, the output of phosphate falls off as the chloride content rises from 0 to 0 6 per cent, and then rises with 0 9 per cent of sodium chloride The chloride output is in general independent of the chloride intake The output of water, phosphate and ammonia is increased by taking acid, the output of chloride and urea is unaffected by the acid

Nature of Autacoids of Posterior Lobe of Pituitary.—The "unitarian" theory of the autacoids of the posterior lobe put forward by Abel and his collaborators is criticized by Draper on the basis of the published results of these authors The pressor and oxytocic activities are shown to have a widely differing distribution during normal butyl alcohol extraction The results of Dudley and of Schlapp are thus confirmed The renal activity is shown to follow closely the pressor activity during normal butyl alcohol extraction The separation by extraction of the oxytocic activity from the renal and pressor activities is explained by assuming that the autacoid responsible for the oxytocic activity is chemically separate from that responsible for the pressor and renal activities The data obtained do not warrant a conclusion as to whether the pressor and renal activities are due to one or more than one substance A method of assaying the renal activity of posterior lobe extracts is described

Action of Anterior Lobe of Pituitary.—Johns et al assert that extracts of the anterior lobe of the pituitary body of the ox, when injected into healthy adult dogs, cause hyperglycemia, polyuria and glycosuria Extracts of the anterior lobe of the pituitary body of the ox produce polyuria and glycosuria but not hyperglycemia, polyuria and glycosuria Extracts of the anterior lobe of the pituitary body of the ox produce polyuria and glycosuria but not hyperglycemia in dogs which previously have been treated with the extracts The hyperglycemia is probably due to increased glycogenolysis in the liver The threshold value of the kidney for glucose is lowered as a result of the administration of the extracts The action of the extracts on blood pressure and uterine strips is not similar to the action of pituitary extract Extracts of liver and muscle made by the same process as the extracts of the anterior lobe of the pituitary failed to give similar results when administered to healthy adult dogs

Effect of Lactic Acid and Urea on Vessels—Perfusion experiments made by Kurtz and Leake in frogs indicate that small amounts of urea as well as lactic acid will cause vascular dilatation when the blood vessels are contricted by buffered Ringer's solution with a p_H above 7 3 or below 7 0 The effect is more striking in the alkaline range

Induced Precocious Sexual Maturity.—Precocious sexual maturity was induced by Smith by making daily homoplastic transplants of the pituitary from the adult, given intramuscularly Maturity occurred as early as the weaning date (22 days of age), thus transcending all normal variability Animals which are only 14 days of age when treatment is begun mature sexually in from eight to ten days, when the treatment is begun at the weaning date, they mature in five or six days The opposite response of the sex apparatus results from pituitary ablation before sexual maturity, the complete establishment of the vaginal canal being delayed and the genital system remaining undeveloped The anterior pituitary component of the transplant only is essential for the induction of premature sexual maturity, the posterior lobe of the pituitary neither hindering nor aiding in the response No stimulus to the development of the uterus or vagina or the immature ovariectomized rat is given by these transplants. The invariable and rapid maturity which is induced by daily pituitary transplants speaks against the view of those who maintain that hypophysectomy does not interfere with sexual development or function, and indicates an important hypophyseal-gonadal interrelationship.

Effect of Carbon Monoxide on Metabolism.—Walters says that carbon monoxide depresses the rate of metabolism, the degree of depression varying directly with the degree of saturation. There is a lowering of body temperature that corresponds closely with the slowing of the metabolic rate. The breathing of carbon monoxide concentrations of from 0.02 to 0.05 per cent for short periods (from one to two hours) has little, if any, effect on the rate of metabolism of the rat, but for long periods (from four to six hours) it depresses the rate in individual cases. Concentrations above 0.05 per cent have marked effects in depressing the rate, even for short periods of exposure. There is a correlation between the fall in the metabolic rate and the symptoms of carbon monoxide poisoning.

Effects of Anemia and Hemorrhage on Cardiac Output.—The effects of anemia and hemorrhage on the cardiac output of intact dogs have been studied by Blalock and Harrison by the Fick method. Diminution of the hemoglobin content of the blood is associated with an increased cardiac output. Progressive hemorrhage leading to decreased blood volume does not cause a marked change in cardiac output until the animal approaches a state of shock, when the cardiac output rapidly decreases. When blood volume is maintained by saline infusion, progressive hemorrhage is associated with an increased cardiac output, which diminishes as shock sets in. These effects occur in animals narcotized with morphine, and in trained unnarcotized animals. The time element is of considerable importance. The more rapidly a given degree of anemia is produced, the more is the output of the heart increased. It is suggested that capillary oxygen pressure may be an important factor in the regulation of the output of the heart.

Effect of Anoxemia on Cardiac Output.—Anoxemia has been produced by Harrison and Blalock by rebreathing, the carbon dioxide being absorbed. Anoxemia of a severe degree (greater than 30 per cent unsaturated) causes slight increase in the pulse rate, increased minute ventilation, diminished oxygen consumption, an uncompensated acid deficit and an increase of from 5 to 500 per cent in the minute cardiac output. These observations support the hypothesis that capillary oxygen pressure is an important factor in the regulation of the circulatory minute volume.

Susceptibility to Tetanus Following Suprarenalectomy.—The susceptibility of albino rats to tetanus toxin after suprarenalectomy was investigated by Rogoff and Ecker. They believe that there is no foundation for the statement found in the literature that partial or complete suprarenalectomy results in an increased susceptibility to tetanus toxin.

Effect of Excessive Amounts of Water.—From the experiments made by Greene and Rowntree, it seems evident that in dogs the forced administration of excessive amounts of water produced demonstrable changes in the volume and composition of the blood. This dilution is shown by a reduction in the hemoglobin and serum proteins, as well as by an increase in the plasma volume. The electrolytes in the serum are likewise reduced, but the concentration of chlorides and sodium decreases to a greater extent than would be expected from the degree of dilution. The behavior of the nonelectrolytes, urea and sugar is apparently determined by factors other than the dilution, and so is partially independent of the water administered.

Archives of Dermatology and Syphilology, Chicago

15: 387-526 (April) 1927

*Fungus Diseases of Skin. C. J. White, Boston.—p. 387.
Epidermophytosis: Laboratory Aspects. F. D. Weidman, Philadelphia. —p. 415.
Dermatophytosis. C. M. Williams, New York.—p. 451.
*Status of Nonspecific Treatment in Dermatology. P. A. O'Leary, Rochester, Minn.—p. 470.

Fungus Diseases of Skin.—White presents the results of a study of 1,013 cases of epidermophytosis. The infection attacks persons of all ages, and has no geographic locale, no epidemicity. A tight-fitting woolen bathing suit, woolen tights, woolen socks, woolen gloves, baseballs, gloves, reins, handles of golf clubs, trusses, straps of wrist watches and shoes worn without stockings, suspensory bandages, athletic clothes and silk underwear are all sources of the infection. Less than 6 per cent of the cases were familial. The local treatment of this disease has proved most disappointing. The best results have been obtained from the use of a 2 per cent aqueous solution of mercurochrome.

Status of Nonspecific Therapy.—O'Leary has not seen any benefit whatever from the use of nonspecific measures in cases of eczema in practically all of its manifestations, in the chronic form of discoid lupus erythematosus, or in allergic dermatitis.

Archives of Surgery, Chicago

14: 793-954 (April) 1927

Intracystic Papillomatous Tumors (One Hundred and Twenty-Four) of Breast. D. Hart, Baltimore.—p. 793.
*Carcinoma of Male Breast. J. M. Wainwright, Scranton, Pa.—p. 836.
*Rhabdomyosarcoma of Vulvar Orifice in Children: Case. C. D. Lockwood, Pasadena, Calif.—p. 860.
*Circuminjection of Autogenous Blood in Treatment of Carbuncles. L. Carp, New York.—p. 868.
*Cerebral Concussion. G. G. Miller, Montreal.—p. 891.
Congenital Atresia of Esophagus: Esophageal Diverticulum and Tracheo-Esophageal Fistula. H. H. Holderman, Shenandoah, Pa.—p. 917.
*Cardiac Output in Dog During Ether Anesthesia: II. Effect of Injection of Alkali. A. Blalock, Nashville, Tenn.—p. 921.
Review of Urologic Surgery. A. J. Scholl, Los Angeles, and Others.—p. 934.

Carcinoma of Male Breast.—Wainwright made a study of the literature, hospital records and personal communications bearing on this subject and, as the result, analyzed 418 cases.

Rhabdomyosarcoma of Vulvar Orifice in Children.—At the age of 14 months, Lockwood's patient began to pass polypoid masses, the size and shape of muscat grapes, which the mother discovered on the diaper. The child was taken to the family physician who found a large mass of polypi, similar to nasal polypi, springing from the posterior vaginal wall. These were removed but soon recurred. The child suffered severe hemorrhage, causing profound anemia. Lockwood saw her two months later when he removed a pedunculated tumor mass, the size of a small orange, from the posterior raphe of the vagina. Over its upper surface, many polypoid tumors resembling a cluster of grapes were found. The child rapidly regained her health and normal weight. She remained well more than nine months—when she again passed two or three small polypi. There was no return of the tumor at the original site, but the abdomen began to fill, and the patient gradually became emaciated. She died at the end of three months of toxemia and exhaustion.

Treatment of Carbuncles by Blood Injection.—Twelve patients who had carbuncles were treated by Carp with circuminjection of autogenous blood without other operative procedure. The blood was withdrawn from the median basilic vein. The infection did not spread, except in one case. There was quick relief from the pain and constitutional symptoms. Reaction was not observed after the injection. Most of the slough liquefied. The injected blood seemed to remain in the tissues, with gradual modification, for from several days to two weeks, as evidenced by induration in the injected area, ecchymosis or both. All the patients showed a minimal scar at the time of discharge from the hospital.

Cerebral Concussion.—Miller asserts that concussion is immediate in onset, and tends to spontaneous recovery without sequelae. The most important symptom of concussion is complete unconsciousness with or without medullary symptoms. Concussion appears to be due to direct mechanical action on the cells, which causes a disturbance of cell equilibrium and temporary loss of function. The medullary effects are those of stimulation or paralysis of the respiratory, vagus and vasomotor centers. The respiratory center is the first to be paralyzed. As this is usually a temporary paralysis, artificial respiration may save life. Death from concussion is immediate and is due to respiratory paralysis with consequent asphyxia.

Effect of Alkali on Cardiac Output During Anesthesia.—The experiments made by Blalock indicate that the routine administration of alkali before operations does not seem advisable.

Boston Medical and Surgical Journal

196: 555-594 (April 7) 1927

Health Examinations. R. I. Lee, Boston.—p. 559.

196: 595-634 (April 14) 1927

*Effects of Tonsillectomy on Acute Attack and Recurrence of Rheumatic Fever. W. H. Robey and L. M. Freedman, Boston.—p. 595.

Adenomyoma of Rectovaginal Septum: Three Cases. J. V. Meigs, Boston.—p. 601.

*Postoperative Treatment of Amputation Stumps in Preparation for Early Application of Artificial Limb. P. N. Jepson, Rochester, Minn.—p. 606.

Specific Preventive Measures in Diphtheria, Scarlet Fever and Measles. J. H. Townsend, Concord, N. H.—p. 611.

*Uterine Index of Development: Hysterometer. S. R. Meaker, Boston.—p. 615.

Effects of Tonsillectomy on Rheumatic Fever.—Robey and Freedman believe that complete enucleation of the tonsils offers the best preventive of rheumatic fever, and therefore of rheumatic heart disease. A history of repeated sore throats is of more importance than tonsils which by appearance suggest disease. Repeated sore throats, even with tonsils of normal appearance, call for tonsillectomy. If the tonsils are diseased in appearance, they should be enucleated even in the absence of sore throats. Tonsillectomy is a major operation, and should be performed only by persons duly qualified by training and experience. Incomplete tonsillectomies leave the patient in as dangerous a situation as before, and throw discredit on the value of tonsillectomy as a preventive. Tonsillar remains are often as formidable as the original tonsil.

Amputation for Prosthesis.—The points of election in amputating and the postoperative care are outlined by Jepson. Attention is called to the fact that, in amputating, the main consideration is not to save all the tissue possible but to provide a stump to which a useful prosthetic appliance can be readily attached. The general types of prosthetic appliance and their advantages are briefly described. The desirability of an early return of the amputated member to function is emphasized.

Uterine Index of Development.—Meaker asserts that the ratio of uterine body to cervix may, in effect, be regarded as an index of the degree of development of the organ. In the truly infantile state the ratio of the length of the supercervical uterine cavity to the length of the cervical canal is 1:2, while in the fully developed adult organ it is 2:1. Turning these ratios into fractional form, the infantile condition would be expressed as ½, or 0.5, and the adult normal as ²⁄₁ or 2., while the various intermediate grades of hypoplasia would fall between those figures. Since it is convenient to have perfection represented by unity, the whole series of figures may be divided by 2. Thus a uterine index is created, ranging from 0.25 to 1, and expressing every degree of development from complete infantilism to the adult normal. This uterine index in any given case is calculated according to the formula $\frac{1}{2}\left(\frac{u-c}{c}\right)$, u being the length of the entire uterocervical cavity and c the length of the cervical canal. Information of this sort is of the highest importance, for marked developmental arrests in the uterus are almost certain to be associated with corresponding imperfections in ovarian development, and hence with defective ovulation and sterility. For the accurate taking of uterine measurements, Meaker has devised an instrument to which the name hysterometer has been given.

Illinois Medical Journal, Oak Park

51: 253-336 (April) 1927

Surgical Significance of Laboratory Diagnosis. E. H. Weld, Rockford.—p. 289.

Chronic Nonulcerative Colitis. C. E. Stewart, Battle Creek, Mich.—p. 292.

*Nontuberculous Lung Diseases Simulating Pulmonary Tuberculosis. P. S. Winner, Chicago.—p. 299.

*Prematurely Born Infants. J. H. Hess and I. M. Chamberlain, Chicago.—p. 303.

Indications for Thyroidectomy. G. de Takats, Chicago.—p. 306.

Injuries to Recurrent Laryngeal Nerve in Operations on Thyroid. T. H. Kelley and V. Wippern, Chicago.—p. 307.

Subphrenic Abscess. F. Christopher, Winnetka.—p. 311.

Treatment of Aneurysm of Aorta by Wiring and Electrolysis. R. W. McNealy, Chicago.—p. 317.

Cancer Problem. J. R. Harger, Chicago.—p. 319.

*Pernicious Anemia in Negro. E. F. Traut, Oak Park.—p. 322.

Anesthesia as Specialty. A. E. Rives, East St. Louis.—p. 323.

Physiologic Effects of Certain Toxic Substances of Gastro-Intestinal Origin. C. E. Baker, Marion.—p. 325.

Complications and Sequelae of Operations for Appendicitis. R. H. Johnstone, Chicago.—p. 328.

Radiation Therapy in Treatment of Inoperable Carcinoma. B. C. Cushway and R. J. Maier, Chicago.—p. 328.

Mental Defectives in Relation to Congenital and Acquired Syphilis. G. G. Kilgour, Chicago.—p. 330.

Nontuberculous Lung Diseases Simulating Pulmonary Tuberculosis.—Winner discourses on some pulmonary conditions closely resembling pulmonary tuberculosis, and at times admitted to the sanatorium with that diagnosis. Of twenty-two cases of lung abscess, the causative factor was tonsillectomy in 32 per cent; pulmonary infection in 23 per cent; appendectomy in 9 per cent, and measles in 4 per cent. There were three cases of carcinoma of the lung. Among 9,942 discharged cases were found 293 cases of pulmonary tuberculosis with positive Wassermann reactions; two cases were considered as syphilis of the lung.

Prematurely Born Infants.—Multiple pregnancy was the most common single cause of premature labor in the 266 cases analyzed by Hess and Chamberlain. Excluding fifty-four babies that died in the first twenty-four hours, 66.9 per cent survived. Immaturity, refrigeration and neglect were the common causes of death in those dying in the first twenty-four hours. Necropsies were performed in seventy-nine cases. Bronchopneumonia with and without atelectasis was present in a large number of the fatal cases. Intracranial hemorrhage was found in thirty-one of the sixty-nine cases in which the skull was opened. Several other cases showed positive evidence of intracranial hemorrhage which, however, was not proved by necropsy.

Pernicious Anemia in Negro.—Of 256 patients with pernicious anemia, forming the basis of Traut's paper, eight were colored. Whether these were mulattoes or full-blooded negroes was not determined. The age of these patients ranged from 25 to 62 years. Three were males; five were females. The average duration of symptoms previous to admission was from two weeks to seven years. Five of the patients had had symptoms for more than one year; the remaining three for less than two months. The disease could be classed as severe in all the cases. Five of the patients died. The remaining three were discharged unimproved after long periods. The diagnosis was substantiated by necropsy in three instances. Of six patients with the diagnosis of aplastic anemia, one was a negro. The diagnosis was confirmed at necropsy.

Iowa State Medical Society Journal, Des Moines

17: 75-112 (March) 1927

Historical Notes. W. L. Bierring, Des Moines.—p. 75.

Periodic Health Examination. C. A. Elliott, Chicago.—p. 82.

Diseases of Thyroid. C. A. Elliott, Chicago, and A. C. Page, Des Moines.—p. 84.

Diagnosis of Tuberculous Ulcers of Bowel. J. T. Strawn and C. A. Sones, Des Moines.—p. 90.

Iodine Hyperthyroidism. A. Jackson, Madison, Wis.—p. 94.

Neurosyphilis. H. B. Henry, Des Moines.—p. 97.

Journal of Biological Chemistry, Baltimore

71: 559-864 (Feb.) 1927

Purification of Pepsin: Properties and Physical Characters. J. C. Forbes, Montreal.—p. 559.

Effect of Potassium Oxalate on Electrolytes of Blood and Plasma. A. J. Eisenman, New Haven, Conn.—p. 587.

Method for Anaerobic Defibrination of Blood. A. J. Eisenman, New Haven, Conn.—p. 607.

Gasometric Method for Determination of *p*H in Blood. A. J. Eisenman, New Haven, Conn.—p. 611.

Activity in Protein Solutions: Inert Gases: Hydration. J. L. Stoddard, Boston.—p. 629.

*Unknown Substance in Diabetes Insipidus Urine. A. B. Illievitz, Montreal.—p. 693.

Comparative Metabolism of Certain Aromatic Acids: XII. Triphenylacetic Acid: Triphenylmethane and Triphenylcarbinol. S. R. Miriam, J. T. Wolf and C. P. Sherwin, New York.—p. 695.

*Cod Liver Oil Concentrate Value as Antirachitic B Kramer, S D Kramer, D H Shelling and M J Shear New York—p 699
Changes in Sugar, Inorganic Phosphorus and Lactic Acid of Blood After Administration of Insulin and of Glucose I Katayama and J A. Killian, New York—p 707
Solubility of Calcium Salts in Salt Solutions and Biologic Fluids I Calcium Carbonate A B Hastings, C D Murray and J Sendroy Jr, New York—p 723
Id II Tertiary Calcium Phosphate J Sendroy, Jr, and A B Hastings New York—p 783
Id III Calcium Carbonate and Tertiary Calcium Phosphate J. Sendroy, Jr, and A B Hastings New York—p 797

Unknown Substance in Diabetes Insipidus Urine.—During the study of a case of diabetes insipidus, a substance of unknown chemical composition was isolated by Illievitz from the urine An attempt was made to establish its relationship to indican or tryptophane, but the urine examined contained neither of these substances

Cod Liver Oil Concentrate.—A cholesterol free concentrate, prepared by the method described by Kramer et al, was found to be as potent as cod liver oil itself in amounts equivalent to the original oil The concentrate, when injected subcutaneously in an ether solution, cured experimental rickets in rats The same concentrate is inactive when injected subcutaneously with palmitin as the solvent

72 1 503 (March) 1927

Catalytic Formation of Mixed Cholesteryl Ethers C E Bills and F G McDonald Evansville Ind—p 1
*Action of Ultraviolet Rays on Ethers and Esters of Cholesterol C E Bills and F G McDonald, Evansville Ind—p 13
*Crystalline Guanine Nucleotide M V Buell and M L Perkins, Baltimore—p 21
Action of Sodium Carbonate on Yeast Nucleic Acid H O Calvery, Baltimore—p 27
*Gasometric Determination of Small Amounts of Carbon Monoxide in Blood D D Van Slyke and I S Robscheit Robbins Rochester N Y p 39
Micromethods for Determination of Labile and Total Sulphur in Proteins L C Maxwell I Bischoff and N R Blatherwick Santa Barbara, Calif—p 51
*Insulin N R Blatherwick I Bischoff L C Maxwell, J Berger and M Sahyun Santa Barbara Calif—p 57
Effect of Temperature on Catalase Reaction S Morgulis and M Beber, Omaha—p 91
Effect of Acid and Base Ingestion on Acid Base Balance A L Koehler, Boston—p 99
*Nonprotein Sulphur Compounds of Blood I Sympectothion G Hunter and B A Eagles, Toronto—p 123
*Id II Glutathione G Hunter and B A Eagles, Toronto—p 133
*Glutathione G Hunter and B A Eagles Toronto—p 147
Cystine in Liver G Hunter and B A Eagles, Toronto—p 167
*Colorimetric Estimation of Cystine and Glutathione G Hunter and B A Eagles, Toronto—p 177
Isolation of Glutathione F G Hopkins, Cambridge, England—p 185
Interrelationships Between Chemical Composition of Blood and Lymph of Dog R M Arnold and L B Mendel New Haven Conn—p 189
Isolation of Thyroxin E C Kendall Rochester, Minn—p 213
*Growth Experiments on Diets Rich in Fat H Levine and A H Smith, New Haven, Conn—p 223
Behavior of Prolamins in Mixed Solvents II D B Dill, Boston—p 239
Changes in Blood Sugar of Cod Sculpin and Pollock During Asphyxia M I Menten Pittsburgh—p 249
*Hyperglycemia and Hypoglycemia Produced by Witte's Peptone M L Menten and H M Manning Pittsburgh—p 255
Metabolism of Women III Variations in Lipid Content of Blood in Relation to Menstrual Cycle R Okey and R E Boyden, Berkeley, Calif—p 261
Influence of Urethane Narcosis on Specific Dynamic Action of Glycocoll and Glucose in Rabbits M S Guttmacher, Baltimore, and R Weiss Prague—p 283
*Iron in Nutrition IV Nutritional Anemia on Whole Milk Diets Their Correction E B Hart C A Elvehjem, J Waddell and R C Herrin, Madison Wis—p 299
Effect of Heat and Oxidation on Nutritive Value of Protein H Goldblatt and A R Moritz Cleveland—p 321
Distribution of Unsaturated Fatty Acids in Tissues II Voluntary Muscle of Beef W R Bloor, Rochester, N Y—p 327
Rate of Disappearance of Various Carbohydrates from Blood J G Reinhold and W G Karr, Philadelphia—p 345
*Thiasine Structure and Identification with Ergothioneine E B Newton, S R Benedict and H D Dakin, New York—p 367
Normal Excretion of Zinc in Urine and Feces of Man K R Drinker, P W Fehnel and M Marsh, Palmerton Pa—p 375
*Action of Blood on Sulphides W Denis and I Reed New Orleans—p 385
[illegible] Fatty Acids of Lecithin from Corpus Luteum M C Hart and F W Heyl, Kalamazoo Mich—p 395
Separation of Histidine and Arginine H B Vickery and C S Leavenworth, New Haven, Conn—p 405
Specific Effect of Salts in Extraction of Urease from Amebocytes of Limulus L Loeb and O Bodansky, Woods Hole, Mass—p 415
Sulphur in Proteins III Derivatives of *l* and *i* Cystine R A Gortner and W F Hoffman, St Paul—p 433
Enzyme Action XL Time Changes in Ester-Hydrolyzing Actions of Extracts of Whole Rats of Different Ages H M. Noyes and K. G. Falk, New York—p 449
Id XLI Id of Whole Mice of Different Ages K G Falk and H M Noyes, New York—p 467
Id XLII Id of Uterine Fibroids and of Uterine Muscle of Human Origin H M Noyes and K G Falk New York—p 475
Id XLIII Id of Rabbit Tissues K G Falk and H M Noyes, New York—p 489

Action of Ultraviolet Rays on Cholesterol.—The action of ultraviolet rays on the ethers and esters of cholesterol was studied by Bills and McDonald Among the esters of cholesterol, the acetate, isobutyrate and benzoate are readily converted into antirachitic modifications by the action of ultraviolet rays Cholesteryl cinnamate is not appreciably activated, but there is evidence that the molecule is altered, the alteration taking place at the double bond of the cinnamate radical, instead of in the cholesteryl radical The antirachitic rays probably induce molecular changes in ordinary cinnamic acid, but they do not render cinnamic acid antirachitic. In the activation of cholesterol esters, the ester molecule as such, and not cholesterol liberated therefrom, is the substance activated Fourteen cholesterol ethers of widely divergent structure failed to become antirachitic on irradiation Whether they underwent molecular alteration of any kind has not been determined In the activation of sterols, both the double bond and the alcohol group are involved. The former must be intact, the latter may be replaced by certain acid radicals

Preparation of Crystalline Guanine Nucleotide.—A method is described by Buell and Perkins for the easy and certain preparation of crystalline guanine nucleotide from yeast nucleic acid

Determination of Carbon Monoxide in Blood—A technic is described by Van Slyke and Robscheit-Robbins for the quantitative gasometric determination of small amounts of carbon monoxide in blood

Preparation of Insulin.—A method for the preparation of insulin is described by Blatherwick et al This method gives a good product with comparatively less effort than is required by other procedures Various methods of purifying crude insulin are discussed

Sympectothion in Blood.—For the substance previously isolated by them, and then termed substance X, Hunter and Eagles now suggest the name sympectothion, as it contains "firmly bound" sulphur The characteristic phosphotungstate of sympectothion has been isolated from human blood The relation to sympectothion of a substance recently isolated by Benedict, Newton and Behre is discussed

Glutathione Normal Constituent of Blood.—Evidence is given by Hunter and Eagles that glutathione is commonl present in human and animal blood corpuscles to the extent of 100 mg per hundred cubic centimeters There is more glutathione in mammalian corpuscles than in mammalian muscle The presence of glutathione in blood is discussed from the point of view of blood analysis and from a physiologic standpoint

Preparation of Glutathione.—Glutathione has been prepared by Hunter and Eagles from yeast, blood and liver, and the products from the different sources appear to be chemically identical when allowance is made for the presence of free cystine in the liver product The preparations, however, are at variance, especially as to the content of total nitrogen, aminonitrogen, and sulphur with the theoretic requirements of diglutaminylcystine These results suggest that reduced glutathione is not a simple dipeptide of cystine and glutamic acid, although those two amino-acids are present

Cystine in Liver—Pure cystine has been isolated from liver by Hunter and Eagles It is suggested that the free cystine in liver may be of importance in the formation of taurocholic acid, and that one of the manifestations of cystinuria may lie in a hepatic failure to metabolize the free cystine of liver

Estimation of Cystine and Glutathione.—A colorimetric method is described by Hunter and Eagles for the accura estimation of cystine and glutathione in simple solutions. It is shown that 4.64 parts of pure cystine yield the same amount of color as ten parts of glutathione. The amount of cystine in hydrolyzed glutathione has also been measured.

Growth Experiments with Fat Diets.—Levine and Smith assert that growth at a normal rate, from 30 to 180 Gm. in body weight, can be induced in rats on a high fat ration practically devoid of preformed carbohydrate and containing 86 per cent of the total calories in the form of fat, provided the protein and salt requirements of the animal are fulfilled. The livers of some of the rats that had been on this high fat ration for a period of eighty-three days, when examined microscopically, did not contain fat droplets. It appears that rats receiving a maximum of calories in the diet in the form of fat can grow as efficiently, measured by energy cost, as when a mixture of calories derived from both fat and carbohydrate is present in the ration.

Hyperglycemia and Hypoglycemia Caused by Witte's Peptone.—Experiments made by Menten and Manning show that different samples of Witte's peptone, when injected intravenously in rabbits, vary widely in the manner in which they modify glycemia. The change in blood sugar ranges from a lack of appreciable alteration through varying degrees of hyperglycemia to a fatal hypoglycemia.

Nutritional Anemia on Whole Milk Diet.—Hart et al. show that the deficiency in milk leading to nutritional anemia is of inorganic character rather than of organic nature.

Nature of Thiosine.—Thiosine has been identified by Newton, Benedict and Dakin as ergothioneine (betaine thiolhistidine). Thus it would seem that the name thiosine should be abandoned. Yet the term ergothioneine seems hardly appropriate as applied to a product which is certainly widely distributed among mammals. The authors suggest dropping the prefix "ergo" and using the term "thioneine." The large amount of the compound present in corpuscles indicates that it is of very definite importance in the organism. Observations up to the present time indicate that thioneine is present in human blood in amounts of from 10 to 25 mg. per hundred cubic centimeters of blood.

Action of Blood on Sulphides.—Analysis made by Denis and Reed of the blood of dogs that had received sodium sulphide by intravenous injection, or by injection into the intestine, sometimes showed a rise in the inorganic sulphate but no increase in the neutral sulphur fraction. These increased values were noted particularly in the case of animals in which the kidneys had been tied off. The results are believed to give support to the theory that hydrogen sulphide is detoxicated by oxidation to sulphuric acid.

Journal of Immunology, Baltimore

13:171-271 (March) 1927

General and Local Immunity to Ricin. E. L. Hazen, New York.—p. 171.
Action of Enzymes on Protective Antibody of Pneumococcus. L. D. Felton and G. Kauffmann, Boston.—p. 219.
Serologic Classification of B. Botulinus: IV. Precipitin Reaction. J. B. Gunnison and P. Schoenholz, San Francisco.—p. 237.
Experimental Immunization with Bacteria Detoxicated by Gold Chloride. M. B. Osman, Edinburgh.—p. 243.
Specificity of Alcohol Soluble Substances of Acid-Fast Bacteria. J. Furth and J. D. Aronson, Philadelphia.—p. 265.

Journal of Laboratory and Clinical Medicine, St. Louis

12: 529-628 (March) 1927

*Van den Bergh Reaction for Serum Bilirubin. W. W. Hall, Washington, D. C.—p. 529.
Sickle Cell Anemia. G. S. Graham and S. H. McCarty, Birmingham, Ala.—p. 536.
*Combined Diluting and Staining Fluid for Differential Leukocyte Counts. D. Nicholson, Winnipeg, Manit.—p. 548.
*Toxicity of Tetra-Ethyl Lead and Inorganic Lead Salts. R. A. Kehoe, Cincinnati.—p. 554.
*Chloride Content of Canned Sauerkraut. M. E. Stark, Madison, Wis. —p. 561.
*Complement Fixation in Tuberculosis. I. Ogawa, Mukden, Japan.—p. 563.
Immunization of Rats Against Pneumococcus by Feeding Acid-Killed Germs. V. Ross, Bloomfield, N. J.—p. 566.
Chemotherapy of Streptococcemia. R. A. Kilduffe, Atlantic City, N. J. —p. 572.
Determination of Sugar in Normal Urine. M. R. Everett and M. O. Hart, Norman, Okla.—p. 579.
*New Mask for Use in Basal Metabolism Determinations. A. W. Rowe, Boston.—p. 590.
Method of Diluting Antigens for Use in Complement-Fixation Test for Syphilis. A. C. Moore, Albany, N. Y.—p. 594.
*Polycythemia Vera Treated with Phenylhydrazine Hydrochloride: Changes in Blood Morphology. H. O. Altnow and J. B. Carey, Minneapolis. —p. 597.
*Simple Blood Culture Technic. P. J. Manheims and I. S. McGrath, New York.—p. 607.
*Quantitative Blood Sugar Estimation: Comparison of Methods. T. L. Byrd, Milwaukee.—p. 609.
Oxalic Acid: Good White Cell Diluting Fluid. R. Jones, Denver.—p. 614.

Van den Bergh Reaction for Serum Bilirubin.—The van den Bergh reaction is a means of qualitative (direct reaction) and quantitative (indirect reaction) study of serum bilirubin. The presence of bile salts in the serum of obstructive jaundice probably explains the prompt direct reaction of the bilirubin in this type, and is the essential difference in serums of obstructive and hemolytic jaundice. The term biphasic was used to describe a direct reaction which began before thirty seconds had elapsed, following the addition of the diazo reagent, and increased in intensity for some time after the thirty second limit. Hall feels that this designation (biphasic) is misleading and should be dropped, for no serums, even those most heavily jaundiced (obstructive), reach their maximum color until long after thirty seconds have elapsed. He classes the direct reactions as follows: prompt or immediate, any reaction beginning in thirty seconds after the addition of the reagent to the serum; delayed, a reaction beginning slowly after thirty seconds and reaching its maximum very slowly, sometimes taking thirty minutes or longer; negative, those in which no color at all developed. In calculation of the dilution in the quantitative reaction, the quantity of supernatant alcoholic solution should be read and that figure used, as the bilirubin in the serum (1 cc.) is all present as azobilirubin in the alcohol. The aqueous cobalt sulphate standard is more desirable than the ether standard. It is more easily handled, is not subject to rapid evaporation and can be made up in quantity. Comparison with the ferric sulphocyanate-ether standard is recommended as a means of avoiding gravimetric errors, if a crystalline cobaltous sulphate is used. Addition of a small amount of concentrated sulphuric acid (from 0.5 cc. to 100 cc. of standard) does not change the color of the cobalt standard and helps preserve it. Serum bilirubin reactions do not appear to change on standing, if refrigerated.

Differential Stain for Leukocytes.—For diluting and staining fluids, Nicholson uses 6 per cent Giemsa's stain in 20 per cent acetone solution as the most satisfactory. The pure Giemsa's stain is kept in one bottle and 20 per cent acetone in distilled water in another. Before making a count, 0.6 cc. of Giemsa's stain is added to 10 cc. of the 20 per cent acetone solution. A large drop of the diluting fluid is placed on a glass slide, and a small drop of blood is added by means of a platinum loop.

Toxicity of Tetra-Ethyl Lead.—The toxicity of tetra-ethyl lead has been determined by Kehoe for rabbits by the various methods of administration. Comparison of the toxicity of tetra-ethyl lead with an inorganic lead salt indicates that its toxicity is a function of its lead content. An explanation of the delayed effect of tetra-ethyl lead, as compared with salts of lead, is offered. It is suggested that tetra-ethyl lead owes its toxicity to a decomposition reaction which produces water soluble compounds of lead that are capable of coagulating proteins.

Chloride Content of Canned Sauerkraut.—Analyses made by Stark of the salt content of canned sauerkraut gave values as follows for total chlorides, expressed as sodium chloride ($NaCl$): 1. For juice (eleven cans, including eight brands), in grams per hundred cubic centimeters: average, 1.881; maximum, 2.228; minimum, 1.502; in grams per hundred grams (per cent): average, 1.830; maximum, 2.167; minimum, 1.469. 2. For solid kraut (seven samplings from five cans, including four brands), in grams per hundred grams (per cent): average, 1.736; maximum, 1.947; minimum, 1.605.

Complement Fixation Test for Tuberculosis.—Of twenty-seven patients with advanced tuberculosis, expectorating bacilli, on whom Ogawa performed this test, twenty-six yielded positive reactions with the Kolmer antigen. The one negative case was so far advanced that death occurred seventeen days after the test was made. The serums from eleven cases of the same series were tested with the Besredka antigen, and in six samples a positive reaction was obtained. Of 111 patients regarded as tuberculous but without expectoration of bacilli, ninety-nine reacted positively with the Kolmer antigen; twenty-two of these were tested with the Besredka antigen, and ten reacted positively. Of the pleural fluids from fifty cases of tuberculous pleuritis tested with the Kolmer antigen, thirty-eight yielded positive reactions. Of sixty-eight fluids tested with the Besredka antigen, fifteen reacted positively. In a group of seventy-nine patients with syphilis and positive Wassermann reactions, the Kolmer and Besredka antigens yielded from 20 to 66 per cent positive reactions; some of these persons were probably tuberculous as well.

New Mask for Basal Metabolism Determinations.—Rowe has modified the construction of Kops' war gas mask so far as to arrest complementary leakage from within.

Polycythemia Vera Treated with Phenylhydrazine Hydrochloride.—Altnow and Carey report a case of polycythemia vera, in which they administered a total of 2.6 Gm. phenylhydrazine hydrochloride in 0.1 Gm. doses over a period of ten days, and effected a complete amelioration of the symptoms of the disease. The drug produced a marked reduction of the absolute lymphoid count, either by destruction of these cells or by a depressive effect on the reticulo-endothelial structures, inhibiting their formation.

Blood Culture Technic.—Manheims and McGrath assert that the addition of 2 per cent sterile sodium citrate solution, in sufficient quantity to prevent the coagulation of blood, does not inhibit the growth of pathogenic organisms in this blood, and provides a simple and satisfactory method of taking routine blood cultures.

Quantitative Blood Sugar Estimation.—Evidence is given by Byrd that the Folin-Wu micromethod, using 0.1 cc. of blood, is just as reliable as any method now in use, irrespective of the quantity of blood necessary for different technics, and regardless of the sugar content of the specimens analyzed. It can be applied in any case in which the need of a quantitative blood sugar estimation is indicated, including infants, small children and obese individuals. Its advantages are obvious.

Medical Journal and Record, New York

125: *297-364* (March 2) 1927

Alcohol Desire and Smooth Muscle Reaction. S. D. Ludlum and E. McDonald, Philadelphia.—p. 297.
Affections of Reticulo-Endothelial System: Diagnostic Difficulties. O. Hensel, New York.—p. 299.
Cancer: XI. Dead Cell: Necrone Concentration: Enforced Cell Division. W. Meyer, New York.—p. 302.
Functional Backache. F. C. Hall, Boston.—p. 304.
Cholecystography: Oral Method with Tetraiodophenolphthalein. V. Knapp, New York.—p. 307.
Tooth Decay and Balanced Metabolism in Infancy and Childhood. G. D. Scott, New York.—p. 310.
Blood Transfusion. E. G. Waters, Jersey City, N. J.—p. 314.
Rupture of Quadriceps Tendon: Four Cases. H. D. Sonnenschein, New York.—p. 316.
Division of Responsibility Between Public and Private Agencies for Public Health Nursing Service. L. D. Bristol, New York.—p. 318.
Hypodermic Medication: Dosage. H. D. Furniss, New York.—p. 320.
Exical in Biliary Tract Disease. E. W. Lipschutz, New York.—p. 321.
Laryngeal Varices. C. J. Imperatori, New York.—p. 323.
Bronchoscopic Treatment of Bronchial Asthma. M. A. Ramirez and A. V. St. George, New York.—p. 327.
Nasal Accessory Sinusitis. M. H. Kaiden, New York.—p. 329.
Nasopharyngeal Tumor Cured by Radium. J. C. Seal, New York.—p. 333.
Bronchial Asthma with Multiple Etiologic Factors. E. Steinfield, Philadelphia.—p. 334.
Relation of Asthma to Nose and Throat Surgery. A. Sterling, Philadelphia.—p. 336.
Did Syphilis Exist in Antiquity? C. G. Cumston, Geneva, Switzerland.—p. 339.

Medicine, Baltimore

6: 1-141 (Feb.) 1927

Relation of Hypophysis to Diabetes Mellitus. A. R. Colwell, Chicago.—p. 1.
Obstetric Injuries of Spinal Cord. B. Crothers and M. C. Putnam, Boston.—p. 41.
Iodine in Treatment of Thyroid Diseases. D. Marine, New York.—p. 127.

New Orleans Medical and Surgical Journal

79: 625-712 (March) 1927

Pruritus Ani and Pruritus Vulvae of Fungal Origin. A. Castellani, New Orleans.—p. 625.
Acute Otitis. G. R. Beridon, Opelousas, La.—p. 634.
Diagnosis. W. A. Bryan, Nashville, Tenn.—p. 639.
Urogenital Ailments of Middle Age. H. W. E. Walther, New Orleans.—p. 646.
Influenza: Complications. F. J. Kinberger, New Orleans.—p. 650.
Focal Infections from Ophthalmologists' and Otolaryngologists' View. L. S. Gaudet, Natchez, Miss.—p. 653.
Spiral Anesthesia. P. Graffagnino, New Orleans.—p. 657.
Diabetes and Tuberculosis. H. Boswell, Sanitorium, Miss.—p. 668.
Toxemia of Scarlet Fever. C. W. Duval, New Orleans.—p. 669.
Diagnosis of Foreign Bodies in Lung. F. E. LeJeune, New Orleans.—p. 674.

Public Health Journal, Toronto

18: 101-150 (March) 1927

Montreal Antituberculosis and General Health League. A. W. Currie, Montreal.—p. 101.
Nontypical Wassermann Reactions in Spinal Fluids. M. M. Malcolm, Vancouver, B. C.—p. 115.
Seymour Plan of Infectious Disease Prevention. F. C. Hill.—p. 118.
Reduction of Infant Mortality. A. C. Jost, Halifax, N. S.—p. 124.
Antisyphilitic Pharmacopeia of Fracastorius. W. R. Riddell.—p. 127.
Child Hygiene. J. T. Phair, Toronto.—p. 132.

Radiology, St. Paul

8: 185-276 (March) 1927

Roentgen Erythema of Human Skin: II. Skin Capillary Changes After Exposure to Filtered Roentgen Rays and to Ultraviolet Radiation. E. A. Pohle, Ann Arbor, Mich.—p. 185.
What Every Radiologist Should Know About Bone Tumors. J. C. Bloodgood, Baltimore.—p. 195.
Roentgen-Ray Therapy in Skin Malignancies. J. M. Martin, Dallas, Texas.—p. 204.
Roentgen Rays and Radium in Fight Against Cancer. G. E. Pfahler, Philadelphia.—p. 215.
Radium Treatment of Hyperthyroidism. J. Muir, New York.—p. 223.
Study in Paleopathology. F. B. Young and A. L. Cooper, Scottsbluff, Neb.—p. 230.
Importance of Teeth in Routine Gastro-Intestinal Examinations. F. B. Sheldon, Stockton, Calif.—p. 241.
Explosive Fractures of Upper End of Humerus. L. C. Kinney and A. E. Elliott, San Diego, Calif.—p. 245.
Parotid Fistula: Case History. I. S. Trostler, Chicago.—p. 248.
Injection of Pilonidal Cyst with Lipiodol. J. Brams, Chicago.—p. 248.

Rhode Island Medical Journal, Providence

10: 33-48 (March) 1927

Testimonial Exercises by Rhode Island Medical Society in Honor of Charles V. Chapin, at Unveiling of His Portrait. G. E. Vincent, New York.—p. 33.

South Carolina Medical Association Journal, Greenville

23: *307-334* (March) 1927

Effects of Malnutrition on Osseous and Nervous System of Child. E. L. Horger, Columbia.—p. 311.
Therapy of Pellagra. G. M. Niles, Atlanta, Ga.—p. 319.

Southwestern Medicine, Phoenix, Ariz.

11: 111-158 (March) 1927

Medical and Surgical Service in Industrial World. S. D. Swope, Chihuahua, Mexico.—p. 111.
Treatment of Fractures of Elbow and Forearm. R. L. Ramey, El Paso.—p. 112.
Immediate Management of Injuries of Back. J. E. Bacon and W. B. Watts, Jr., Miami, Ariz.—p. 114.
Head Injuries with Ear Symptoms. F. P. Schuster, El Paso.—p. 116.
Plea for More General Postoperative Use of Duodenal Tube. W. L. Brown and C. P. Brown, El Paso.—p. 118.
Pyelitis of Pregnancy. W. R. Jamieson, El Paso.—p. 121.
Effect of Menstrual Cycle on Basal Metabolism. F. J. Milloy, Phoenix.—p. 124.
Ureteral Stone. H. C. Bumpus, Jr., Rochester, Minn.—p. 127.
Roentgen-Ray Shadows of Secondary Infection in Lung Tuberculosis. H. P. Mills and W. W. Watkins, Phoenix.—p. 130.
Localization of Bacteria in Lung Apexes: Review of Literature. O. H. Brown, Phoenix.—p. 132.
Encephalitis. J. M. Richmond, El Paso.—p. 139.
Cerebral Hemorrhage. E. J. Cummins, El Paso.—p. 139.
Cerebral Gummata. E. D. Strong, El Paso.—p. 140.
Brain Abscess. J. A. Rawlings, El Paso.—p. 140.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below Single case reports and trials of new drugs are usually omitted

British Medical Journal, London

1: 501 552 (March 19) 1927

Surgery of Gastric and Duodenal Ulcers H S Souttar —p 501
*Hereditary Familial Congenital Hemorrhagic Nephritis A C Alport —p 504
Schick Test Applied to Mental Defectives R Munro —p 506
*Mortality of Acute Appendicitis J B Hunter —p 508
*Anaphylaxis and Ultraviolet Light Treatment A Bryce —p 509
*Estimating Cardiac Output I Harris —p 510
Prognosis in Fractures of Os Calcis P Malpas —p 510
*Fatal Case of Acute Pulmonary Edema M M Posel —p 511
*Extensive Necrosis in Chickenpox S N Dykes —p 511
Estimation of Cure of Bilharziasis F G Cawston —p 512
Unusual Hernia in Inguinal Region H Banks —p 512

Hereditary Congenital Familial Hemorrhagic Nephritis—The cases of hemorrhagic nephritis which have come to Alport's notice belong to a later generation of the series studied by Leonard Guthrie and Hurst All the children of three generations of one family suffer from hematuria or nephritis, associated with deafness The deafness, which has not been stressed in the literature on the subject, is one of the most distressing features of this extraordinary disease This nerve deafness is apparently of the type of defective hearing It occurs not only in the individuals who have nephritis or hematuria, but also in those who are otherwise perfectly healthy Alport points out that hereditary familial or congenital nephritis is a definite entity, and the kidneys in these patients are more susceptible to injury by the toxin of an unknown organism than is the case in the normal person The organism probably belongs to the streptococcal group In the first case investigated by Alport, the coagulation time of the blood was delayed, intravenous injections of 1 grain (0 065 Gm) of calcium chloride reduced the coagulation time and caused a reduction in the amount of blood and albumin in the urine Calcium lactate given by the mouth is useless, as it is not absorbed by the intestines Cultures of *Streptococcus viridans* found in the stools of this patient, and of his cousin, failed to produce the disease when introduced into the veins of a rabbit Cultures of the stools of another case, which showed both *S viridans* and hemolytic streptococci, caused changes in the urine and kidneys of a rabbit after intravenous injections The male members of a family tend to develop nephritis and deafness and do not, as a rule, survive The females have deafness and hematuria and live to old age Two of the cases are interesting evidence of the variations in the course of nephritis The kidneys of two members of the same family were attacked, apparently by the same organisms, at the same time, and under exactly the same conditions The elder brother contracted acute nephritis, which cleared up completely, the younger developed parenchymatous nephritis, passing into small white kidney and ending in death

Mortality of Acute Appendicitis—Hunter reviews a large number of cases of appendicitis, showing 1 8 per cent case mortality, excluding the general peritonitis cases, and 3 5 per cent for all cases, as evidence in favor of immediate operation in acute appendicitis

Ultraviolet Therapy of Asthma—Bryce gives the results of ultraviolet therapy in a typical case of spasmodic asthma and bronchitis of the most severe character, in a typical case of protein sensitization, and in a typical case of asthma alternating with eczema He reports that he has seen many cases of neuritis and lumbago cured by the use of ultraviolet rays The most useful function of ultraviolet rays is their power to increase the absorption of calcium and phosphorus This leads not only to the better nutrition of the bones and nervous system, but also to the alleviation of spasm and the induction of a calmative effect on the nervous system Nor must it be forgotten that there is an increase of iron in the blood and a decided rise of hemoglobin in the erythrocytes, diminishing the risk of dyspnea and asphyxia, so potent a factor in asthmatic conditions Finally, the internal secretions of thyroid and suprarenals are increased, and both are valuable in the treatment of asthma and allied conditions

Estimating Cardiac Output—In the method described by Harris, the venous pressure is measured by inserting a needle, preferably in the cephalic vein of the arm A given number of heart beats are admitted Then the pressure is taken again, and from the increased venous pressure the output per beat, or, if desired, per minute is calculated The principle underlying this method is the determination of the single output by variation of the venous pressure

Fatal Acute Pulmonary Edema—The point worthy of interest in Posel's case was that the rhythm of the heart was regular throughout the attack The cause of the sudden onset of the alarming and fatal symptoms was not determined

Extensive Necrosis in Chickenpox—In the case reported by Dykes, a child, aged 2 years and 9 months, contracted chickenpox from her sister, aged 8 There was a slightly reddened, tender patch over the lower part of the right shoulder-blade, alongside a vesicle There were not more than twenty vesicles in all on the body and head The heart and respiratory sounds were normal The following day the temperature had fallen a degree, but the general condition had not improved The area of redness over the right shoulder blade had increased, and there was a wide margin of tenderness beyond During the succeeding forty-eight hours, the condition grew worse On the fourth day a small necrosed patch, rather smaller than a shilling, was then present at the original site of the inflammation, and below this the skin was discolored Tenderness and muscular spasm extended to the vertebral column posteriorly and to the middle line of the chest and abdomen anteriorly There was tympanites and constipation The necrosed patch increased in size daily There was no suppuration, but the body became dusky and mottled By the morning of the sixth day the patch, roughly oval in outline, measured about 1½ by 3 inches (4 by 7 5 cm), and was beginning to separate at its upper margin The child died the morning of the seventh day

China Medical Journal, Shanghai

41: 103 184 (Feb) 1927

*Esophageal Atresia Associated with Arterial Anomaly J L Sheelshear and J Anderson —p 103
Postoperative Treatment of Streptococcus Hemolyticus Mastoiditis A M *Dunlap —p 107*
*Polio Encephalitis, with Apparent Contagion Four Cases A H Woods —p 111
Eclampsia F J Heath —p 117
*Id Treatment C B Whitmore —p 125
*Surgical Aspects of Ascaris Lumbricoides A I Ludlow —p 134
Economy in Choosing and Buying Drugs H O Chapman —p 141
Eclampsia Prior to Labor S C Wolfe —p 148
Chronic Intussusception J M Beattie —p 149
*Tea in Treatment of Burns J K Shen —p 150
Leprosy L S Huizenga —p 153
Anesthesia by Ether R M Gibson —p 157

Esophageal Atresia—The esophageal atresia in the case reported by Sheelshear and Anderson occurred at the level of the upper border of the arch of the aorta An arterial anomaly was associated with this The arch of the aorta first gave rise to the two common carotid arteries, which sprang from a short common trunk, in close proximity to this trunk the left subclavian artery arose, and finally the abdominal right subclavian artery, from the descending aorta

Contagion of Poliencephalitis.—The possibility of the brain being involved in patients suffering from common "colds' is illustrated by four cases, cited by Woods, in which a respiratory infection, apparently communicated from a woman to three of her nurses, resulted in a paralysis of the motor nuclei of the whole brain stem in each patient, and a mild involvement of the motor nuclei of the spinal cord The picture presented by these four cases was that of a throat infection accompanied by fever, followed within two weeks by paralysis, first of the eye muscle centers and then, seriatim, of those of the chewing muscles, the facial, palatal, tongue and swallowing muscles The nuclear involvement spread to the motor centers of the neck, including the phrenic, and, to a lesser extent, to the motor centers of the whole spinal cord

Mortality of Eclampsia—In the series of 110 cases analyzed by Whitmore there were eighteen deaths—forty cases treated conservatively, with four deaths, and seventy cases treated radically, with fourteen deaths.

Ascaris Causes Abdominal Disturbances.—*Ascaris lumbricoides* is one of the most common parasites found in Korea In a series of 5,000 examinations reported on by Ludlow, *Ascaris* was present in 53 2 per cent In a second series of 4,000 examinations, it was present in 44 2 per cent Of 454 surgical patients, 207 were infested with *Ascaris* Three cases of appendicitis, two of abdominal wall abscess with perforation at the umbilicus, all in children, and one case of *Ascaris* in a gallstone, have been observed The following conditions due to *Ascaris* are reported in detail (*a*) intestinal obstruction, gangrene of a portion of the ileum, (*b*) intraperitoneal abscess, postoperative appearance of *Ascaris* through the drainage incision, (*c*) general peritonitis from perforation of the ileum

Tea in Treatment of Burns—Tannic acid has been used in the treatment of burns rather extensively in Shen's clinic, and its efficacy has been amply demonstrated It occurred to him, however, that as the principal active ingredient of tea is tannic acid, it might be possible also to use strong infusions of tea for the treatment of burns It further occurred to him that as tea is the beverage in China, as well as in the other Oriental countries, a common therapeutic measure for burns might be developed which can be readily used in any household The fifteen minute, 8 per cent, infusion of average green or red (black) tea is considered as most suitable for the treatment of burns The infusion can be sterilized by boiling for three minutes Good results are reported.

Indian Medical Record, Calcutta

47. 33 64 (Feb) 1927

*Cultivation of Giardia Intestinalis (Lamblia) G C Chatterjee —p 33.
Human Death A Macdonald —p 34
Massive Infection by Tuberculosis G C Chatterjee —p 45

Cultivation of Giardia—Chatterjee has grown *Giardia* in physiologic sodium chloride solution, when it was sealed in a test tube and kept at a temperature which varied from 20 to 24 C for twenty four hours *Giardia* was thus grown successfully up to the fourteenth generation

Journal of Tropical Medicine and Hygiene, London

30. 73 84 (March 15) 1927

*Parasites and Malignant Proliferations H P Bayon —p 73
Case of Bilharzia Disease with Spindle Shaped Ova F G Cawston —p 81

Parasites and Cancer—Bayon is convinced that the "parasitic hypothesis of cancer," in the sense of its being a "virus theory," is not as totally unfounded as many appear to believe Instead, it is the result of numerous analogic observations, and should be quite amenable to experimental proof

South Africa Medical Association Journal, Cape Town

1. 73 100 (Feb 26) 1927

*Red Blood Cell Sedimentation Test in Mental Diseases A Pijper and E D Russell —p 74
Stimulating the Phagocytes H Bodkin —p 83

Sedimentation Test in Mental Diseases—Pijper and Russell have applied the sedimentation test in 625 cases distributed among seven mental disorders dementia praecox, 361 cases, manic depressive psychosis, thirty, general paralysis, twenty-eight, alcoholic psychosis, twenty-four, epilepsy, ninety-five, defective mental development, fifty-two, and senile psychosis, thirty-five cases The test is not specific for any disease The small number of positive reactions in the early stages of dementia praecox makes the test not very helpful for the diagnosis of early dementia praecox Untreated cases of general paralysis give a positive sedimentation reaction, and treated cases (malaria or tryparsamide) that show a good remission give a negative sedimentation reaction In alcoholic psychoses a positive result is obtained in 75 per cent of cases Improvement sometimes seems to retard sedimentation Epileptic patients give a positive reaction only in congenital long standing cases with considerable mental deterioration In cases of defective mental development and senile psychoses, a fair number of positive reactions are obtained

Acta Dermatologica, Kyoto, Japan

9: 1 58 (Jan) 1927 I

Behavior of Epithelium of Human Skin in Autoplasma and Homoplasma Cultures S I Ishikawa and I Asai —p 36
Precipitation Reaction of Vegetable Proteins K Fujita —p 46
*Blood Changes in Experimental Acute Lead Poisoning K Fujita. —p 58

Blood Changes in Experimental Lead Poisoning.—By feeding rabbits lead acetate, Fujita produced an experimental acute lead poisoning The erythrocytes were lessened in number, the leukocytes were increased The quantity of fibrinogen in the blood plasma and in the hemoglobin was diminished The erythrocyte resistance against hypotonic salt solution was changed but little

9: 59 150 (Jan) 1927. II

*Osteitis Deformans Framboesica T Matsunga —p 76
Experimental Studies of Precipitin and Specific Cutireaction. VII. Histologic Features G Shoji —p 88
Scleroderma Neonatorum Cutis Y Kimura —p 99
Resorption of Heterogenous Proteins from Mucous Membrane of Urinary Bladder G Shoji —p 109
*Immunologic Relationship Between Syphilis and Framboesia. S Matsumoto, Y Ikegami and S Takasaki —p 113
*Von Recklinghausen s Disease with Nevus Anemicus S Shimomura. —p 130

9: 151 232 (Feb) 1927

Examination of Urethra by Frumkin's Roentgen Ray Photography Method S Tamura and Y Iino —p 161.
Seroreaction of Rabbits with Syphilitic Lesion in Paranasal Region. O Domon and M Abe —p 168
Seasonal Variation in Length of Incubation Period in Rabbit Syphilis. O Domon and T Shimoda —p 178
Carcinosarcoma in Rabbit's Ear After Repeated Tarring. Multiple Metastasis of Sarcomatous Tumor in Regionary Lymph Glands and Internal Organs T Shimoda —p 187
Experimental Tuberculosis of Rabbits' Testes G Shoji —p 202
Intestinal Parasites of Truk Islanders in South Seas. T. Matsunaga. —p 211
Psoriasis Pustulosa A Fukai —p. 221.

Osteitis Deformans Frambesica.—Matsunaga reports on twenty-four cases of deformity of the forearm and leg. The radius was thickened, especially on the radial side, increasing in degree toward the wrist It was also bowed The ulna was likewise thickened, especially toward the ulnar side and the elbow It, too, was bowed. The tibia was thickened and bowed forward The fibula was slightly thickened The cause of these changes was an attack of frambesia, which, Matsunaga says, should be borne in mind in every case of osteitis deformans occurring in the tropics

Immunologic Relationship Between Syphilis and Frambesia—Matsumoto and his associates found that rabbits which have had syphilis but which have been cured by adequate arsphenamine treatment may be infected scrotally with frambesia with great ease, a characteristic lesion being produced, in which the spirochetes are to be found The immunity to syphilis and to frambesia acquired by an animal suffering from syphilis is quite different

Anemic Nevi with von Recklinghausen's Disease.—Shimomura's patient was aged 22 He presented typical symptoms of von Recklinghausen's disease and, in addition, multiple, irregularly shaped anemic nevi on the right side of the chest

Acta Scholae Medicinalis, Kyoto, Japan

8: 425 565 (July 25) 1926

Action of Colloidal Heavy Metals on Blood Catalysis S Takayama. —p 425
Effect of Various Substances of Fatty Series in High Dilution on Blood Catalysis S Takayama —p 437
Effect of Various Nonmetallic Colloids on Blood Catalysis S Takayama —p 451
Significance of Some Gases in Autodecomposition of Blood Catalysis S Takayama —p 459
Experimental Studies on Secretion and Absorption of Dyestuffs by Stomach I K Kobayashi —p 465
Id II Function Test of Stomach with Dyestuffs K Kobayashi —p 489
*Id III Absorption of Dyestuffs by Stomach K Kobayashi —p 501.

Studies on Movement of Hexacanth Embryo. M. Isobe—p. 519.
Volumetric Estimation of Complement Fixation and Results of This Test. R. Torikata.—p. 537.

Absorption of Dyestuffs by Stomach.—Kobayashi has studied the absorption of thirty-one dyestuffs by the stomach, which are excreted after being injected into the blood circulation from the liver and the kidneys, and he is convinced that sixteen are absorbed. Dyestuffs which have greater diffusibility than about 5.5 cm. in eight days in 0.5 per cent agar-agar-gel are absorbed by the stomach, and those of lesser diffusibility than 5 cm. are not. Furthermore, the more diffusible a dyestuff is, in general, the more of it is absorbed in a certain time.

Bulletin of Naval Medical Association, Tokyo

16: 1-54 (March) 1927

Clinical Significance of Nonurea Nitrogen, Blood Indican and Blood Xanthoprotein Reaction on Diseases of Kidney. N. Sugata—p. 53.
*Roentgen Ray Treatment of Exophthalmic Goiter. J. Uyehara—p. 53.
Surgical Treatment of Typhoid Bacillus Carrier. T. Mizuno.—p. 54.

Roentgenotherapy of Exophthalmic Goiter.—In Uyehara's cases, all symptoms of thyroid enlargement, exophthalmos, palpitation and tachycardia markedly subsided. In three of the four cases, marked decrease of nitrogen excretion in the urine was noted.

Journal of Biochemistry, Tokyo

7: 1-189 (Jan.) 1927

Change of Plasma Proteins of Hematoporphyrin Rabbit. M. Komatsu.—p. 1.
Chemical Nature of Serumglobulin in Hematoporphyrin Rabbit. M. Komatsu—p. 19.
Effect of Cooling on Muscle: I. Frozen Fish. H. Akatsuka.—p. 27.
Id. II. Creatine and Creatinine of Rat Muscle. H. Akatsuka.—p. 41.
Influence of Insulin on Sugar Elimination Threshold: After Effects on Sugar Assimilation. G. Eda—p. 53.
Influence of Partial Excision of Pancreas on Sugar Elimination Threshold. G. Eda—p. 79.
Formation of Bile Acids. S. Yonemura.—p. 101.
Relation of Amino-Acids to Bile Acids in Intestinal Digestion of Fat. R. Karasawa.—p. 117.
Behavior of Bile Acids During Digestion of Protein. R. Karasawa.—p. 129.
Influence of Bile Acids on Protein and Purin Metabolism: Significance of Choleic Acid. R. Karasawa.—p. 145.
Nitrogenous Extracts from Beef Liver. Y. Hiwatari.—p. 161.
Nitrogenous Components of Citrus Fruit. Y. Hiwatari.—p. 169.
Amino Acids: II. Action of Cystine and Cysteine of Chicken Egg During Incubation. Y. Sendju.—p. 175.
Action of Creatine and Creatinine of Chicken Egg During Incubation. Y. Sendju.—p. 181.

Jour. Oriental Medicine, Darien, S. Manchuria

6: 1-16 (Feb.) 1927

*Active Principle of Opium When Smoked. S. Nakajima and S Kubota.—p. 1.
*Absorption and Evaporation of Water by Human Epidermis Desquamated by Scarlatina. K. Fukuchi—p 4
*Congenital Anomaly of Heart. T. Ischii.—p. 5.
*Application of Dick Test to Normal Persons in Relation to Scarlet Fever in Manchuria. T. Toyoda and T. Satake, Y. Futagi, J. Moriwaki and M. Takeda—p. 6
*Specific Value of Dick Test in Determining Susceptibility to Scarlet Fever. T. Toyoda and J Moriwaki, Y. Futagi and M. Takeda—p 9.
*Relation Between Schultz Charlton Blanching Test and Dick Reaction in Scarlet Fever. T. Toyoda and J. Moriwaki and Y. Futagi—p 12.
Relation Between Dick Test and Schultz Carlton Phenomenon in Scarlet Fever Recidivation. J. Moriwaki, Y. Futagi, S. Hoshizaki and Y Tanaka—p 13
*Preventive Immunization Against Scarlet Fever in Dairen, South Manchuria. T. Toyoda and J. Moriwaki and M Takeda—p. 14
*Therapeutic Value of Antistreptococcus Toxin Serum in Scarlet Fever. T Toyoda and J. Moriwaki, Y. Futagi, S. Hoshizaki and Y Tanaka.—p 16

Active Principle of Opium When Smoked.—Nakajima and Kubota found that about 15 per cent of the alkaloids of smoked opium is dissipated in the smoke, and is not burned in the pipe. At least one of the chief active principles of opium smoke is morphine.

Water Absorption and Excretion by Epidermis.—Fukuchi concludes that the surface of the epidermis is able to absorb and discharge water rapidly, while the diffusion in its tissue is very slow. It is therefore probable that the content of water in the epidermis of a living subject is very different at its surface and beneath it. The former is extremely dry and the latter is very moist

Congenital Anomaly of Heart.—Ischii reports a case of cor biloculosis, with persistence of the truncus arteriosus communis.

Specific Value of Dick Test.—Toyoda et al. found that the Dick test, applied to 11,284 Japanese, was positive in 37.3 per cent, the highest figure being for children, aged 3 years, namely, 80.9 per cent

Dick Test to Determine Susceptibility.—Toyoda et al. conclude that natural immunity to scarlet fever has a close relation to the Dick toxin, and that the Dick test is a reliable means of determining the susceptibility or immunity to scarlet fever.

Relation Between Schultz-Charlton Test and Dick Reaction.—Toyoda et al. found a specific relation existing between the Schultz-Charlton phenomenon and the Dick test.

Preventive Immunization Against Scarlet Fever.—Toyoda et al. conclude that while preventive immunization against scarlet fever after the application of the Dick test may be a definite aid in preventing further severe attacks, it cannot be said to secure absolute immunity from the disease, at least not in South Manchuria.

Therapeutic Value of Antistreptococcic Serum and Antitoxin in Scarlet Fever.—Antistreptococcic and antitoxin serums have had a marked specific effect in the cases of scarlet fever treated by Toyoda and his associates. The mortality in serum treated cases was 24 per cent; in the nonserum treated cases it was 45.5 per cent.

Mitt. u. Allg. Pathol. u. Path. Anat., Tokyo, Japan

3: *343 586 (Feb. 25) 1927*

*Myositis Ossificans Progressiva Multiplex: I. T. Ipponsugi—p. 343.
*Id · II. T. Ipponsugi—p 425
Id: III. T. Ipponsugi—p 461
*Pathology of Chronic Kidney Tuberculosis. M. Koike—p. 490.

Progressive Multiple Myositis Ossificans.—Study of a typical case of myositis ossificans multiplex progressiva has convinced Ipponsugi that the new bone formation takes place in the interstitial connective tissue of muscles or in the fascia of tendons but never in periosteum, this membrane, at most, being affected only secondarily The newly formed bone frequently is connected with skeletal bones by means of a plate of cartilage. Morphologically and functionally, this union is comparable to a pseudarthrosis.

Myositis Ossificans; Calcification Areas.—In this case, Ipponsugi found calcific masses in the kidneys, brain, mucous membrane of the colon, tracheal cartilage, walls of the spleen arteries and, in large amount, the pineal gland. Bone was not found in these structures

Pathology of Kidney Tuberculosis.—Koike examined 109 kidneys removed because they were the seat of chronic tuberculosis, usually of the caseous form (sixty-eight cases). These sixty-eight kidneys showed the most marked changes. The work of Wildbolz is confirmed.

Okayama Medical Journal, Okayama, Japan

445: 153 298 (Feb. 28) 1927

*Histology of Cranial Nerve Roots at Point of Exit or Entrance. F. Bito—p. 153
Microscopic Structure of Walls of Arteries of Penis T. Sato.—p 159.
*Blood Changes with Tar Cancer in Rabbits Y Yoshioka—p. 178.
Comparative Investigation of Curarelike Acting Poisons on Skeletal Muscles. R. Katagi—p. 231.
Fibrin Content of Blood of Healthy Japanese. A. Fujiwara—p 242
Tuberculosis Miliaris Ulcerosa of Penis and Penis Tuberculid. I. Ehara.—p 249.

Histology of Cranial Nerve Roots.—Bito says that the fibers of the motor oculi acid hypoglossus nerve are provided with a sheath of Schwann. In the cranial nerve roots, the neurilemma covered portions are sharply differentiated from the neurilemma free portions by connective tissue partitions.

Blood Changes with Tar Cancer.—The blood changes noted by Yoshioka in tar cancer are reduction in viscosity and lengthening of coagulation time. The cholesterin apparently is affected but little.

Comptes Rendus de la Société de Biologie, Paris

96: 149-232 (Jan. 28) 1927. Partial Index

*Venous Tension and Tension of Cerebrospinal Fluid A. Tzanck and P. Renault —p 157
**Pilocarpine Plus Acridine in Treatment of Gonorrhea.* H. Jausion and A. Pecker —p 163
*Typhoidal Infection and Crossed Vaccination in Guinea Pigs. J Dalsace and M Gory.—p. 178
**Antityphoid Immunization* of Guinea Pigs. E Grasset and M. Gory —p 180.
*Hemolysis of Bacterial Origin L Muller —p 189
*Insulin in the Blood of the *Pancreatic Vein and Irritation* of the Vagus. J La Barre —p 193.
*Physiologic Insulinemia J La Barre —p 196
*Permeability of Gelatin for *Calcium Chloride* E J Bigwood —p 199.
*Glucose Does Not Prevent Cyanogen Poisoning C Heymans and R. Soenen —p 202
*Transmission of Action of Cardiac Nerves by Fluid P Rylant —p 204
*Action of *Dyes on Permeability of* Meningeal Vessels M Le Fevre de Arric and M Millet —p 206
*Influence of Roentgen Rays on Vaccination M Le Fevre de Arric —p 208
*Agglutinability of Bacilli Treated with Bacteriophage R. Bruynoghe and A Dubois —p 209
*Experimental Changes in Color Index of Erythrocytes M Royer —p 216
*Sensitiveness to Morphine in Suprarenalectomized Rats J T Lewis and A Tormo —p 217
*Sensitiveness of Suprarenalectomized Rats to Certain Substances C A Crivellari —p 223
*Origin of Digestive and Muscular Leukocytosis. G Viale and J. Di Leo Lira —p 228
*Glycolytic Action of Lactacidogen G Viale and T Combes —p 229
*Anaerobic Production of Alcohol in Muscles G Viale —p 231

Relation Between Venous Tension and Tension of Cerebrospinal Fluid.—In twelve healthy persons, Tzanck and Renault found that the venous tension was identical with that of the cerebrospinal fluid In diseases with a high venous tension. there was almost constantly a high tension of the cerebrospinal fluid. The balance between the two tensions is explained by the close anatomic connection of the subarachnoid space with the surrounding venous plexuses, hence, with the two venae cavae In hypertension of the cerebrospinal *fluid, the venous tension ought to be examined simultaneously* Failure of parallelism between the two tensions may [illegible] a valuable sign in diagnosis.

Pilocarpine as Adjuvant of Acridine in Treatment of Gonorrhea.—Jausion and Pecker's experience includes twenty-nine patients with gonorrhea A dose of 5 cc. of a solution containing 0.02 Gm of diamino-acridine chloromethylate and 0.001 Gm of pilocarpine nitrate per cubic centimeter was injected by the vein The injections were repeated at intervals of one day Discomfort from the injection did not last more than half a minute Usually, nine injections brought about recovery or great improvement The action of pilocarpine chlorhydrate proved to be analogous to that of pilocarpine nitrate.

Crossed Vaccination of Guinea-Pigs with Typhoidal Infection.—Dalsace and Gory injected a series of guinea-pigs with a virulent culture of typhoid or paratyphoid bacilli The animals developed a mild infection, inducing immunization. Another series of guinea-pigs were given typhoid and paratyphoid autolysates, and then tested with virulent typhoid bacilli. The immunity appeared to be more thorough than *in the first series In both instances the test inoculation* caused notable local *reaction, developing into an abscess.* This occurred when the inoculation was made by way of the skin or by that of the conjunctiva

Serum of Guinea-Pigs Immunized Against Typhoid.—Grasset and Gory inoculated guinea-pigs with typhoid or paratyphoid autolysates treated with formaldehyde and heat. The local reaction was insignificant; the general condition *remained* unchanged. *On the other* hand, injection of untreated autolysates in doses one-fortieth as large was fatal. Guinea-pigs immunized with treated autolysates were hyperimmunized with large doses of a virulent culture. The serum of these animals injected into fresh animals immunized the latter against the infection.

Mechanism of Hemolysis of Bacterial Origin.—Muller emphasizes the fact that cultivation of staphylococci on blood agar causes decoloration of the *medium.* Evidently, the coccus represents a hemolytic micro-organism which should properly be called hemodestroyer or hemophage. The destruction of the blood can be ascribed only partly to the action of the staphylococcus. A filtrable agent *may* be present in the human *blood, the hemolytic activity of which is conditioned by the presence* of the staphylococcus.

***Increase* of Insulin in the Blood of the Pancreatic Vein After Irritation of the Vagus.**—La Barre established anas*tomosis* between the pancreatic vein of a dog and the jugular vein of another dog. Then the peripheral end of the right vagus of the donor dog was exposed to an electric current. This was followed in the other dog by hypoglycemia, similar to that from administration of insulin. Furthermore, venous blood from the pancreas was *transfused into depancreatized* animals It caused *considerable reduction of the* experimental hyperglycemia. The antidiabetic action of the pancreatic blood appeared much stronger than that of the carotid blood The facts testify to a physiologic insulinemia.

Elective Permeability of Gelatin for Calcium Chloride.—Bigwood's researches showed that gelatin jelly hydrolyzes a neutral solution of calcium chloride, and increases notably the hydrogen ion concentration of the solution. This is due to the elective permeability of the gelatin for chlorine and calcium ions *The phenomenon occurs* without *the presence* of a dialyzer separating the protein medium from the aqueous solution.

Glucose Does Not Prevent Poisoning from Cyanogen Compounds.—In the experiments of Heymans and Soenen, guinea-pigs and rabbits treated with glucose did not resist inhalations of hydrocyanic acid longer than did nontreated animals. Resistance to the poisoning was increased in animals treated with sodium hyposulphite. This confirms the observations of *Lang* and Heymans.

***Transmission* of Action of Cardiac Nerves by the Medium of Fluid.**—*Rylant's* experiments were conducted on cats, rabbits and dogs. The isolated heart of an animal was irrigated with Locke's solution, and the liquid used in the perfusion was transferred to the isolated heart of another animal. Irritation of the vagal fibers in the first heart caused reduction in activity of the second heart. Irritation of *the sympathetic nerves* in the donor's heart increased the activity of the other heart. The vagal disturbances in the recipient heart *yielded* to atropine; the sympathetic disturbances, to ergotamine.

Influence of Certain Dyes on Permeability of Meningeal Vessels for Viruses.—Le Fèvre de Arric and Millet injected rabbits subcutaneously with various dyes, and then introduced herpes or rabies virus by the vein. It appeared that hexa*methyl violet,* methylene blue, neutral red, trypan blue and fluorescein *favor fixation of the virus in the nervous system.* This action on the part of the dyes *proved to be connected* with their retention in the choroid plexuses or in the meninges or with their passage into the cerebrospinal fluid.

Inhibiting Action of Roentgen Rays on Experimental Vaccination.—Le Fèvre de Arric exposed the shaved skin of rabbits to roentgen rays. Fourteen days later smallpox vaccine was *applied to the pigmented region,* and *to the surrounding* skin. Only a few *pustules developed on the treated* region; the number of the pustules was considerable on the normal skin The phenomena observed with roentgen rays are analogous to those observed by Carnot, Camus and Bénard with ultraviolet rays.

Influence of Bacteriophage on Specific Agglutinability of Bacilli.—Bruynoghe and Dubois injected rabbits with cultures of typhoid or *pseudodysenteric bacilli treated with the same* bacteriophage Examination of the *animals' serums revealed* that the agglutinability of the different *micro-organisms* remained different in spite of the fact that the latter had been exposed to the same bacteriophage.

Experimental Changes in Color Index of Erythrocytes.—Royer observed a rise in the color index of erythrocytes in hemolytic anemia *in dogs,* caused *by cobra venom.* The increase reached its *maximum from one to three days* after the injection of the venom; thereafter it fell gradually, the index becoming normal in two weeks. It is presumed that a part of the liberated hemoglobin is retained by the erythrocytes. The size of the latter parallels the amount of the hemoglobin retained; consequently, it increases with the rise in the color index.

Sensitiveness to Morphine in Rats After Removal of Suprarenals.—Lewis and Torino noted an increased susceptibility to morphine in rats deprived of the suprarenals. The fact was confirmed by the glucose test.

Sensitiveness of Rats to Certain Substances After Removal of Suprarenals.—Crivellari found an increased sensitiveness to potassium cyanide, nicotine, acetonitril and histamine in suprarenalectomized rats.

Origin of Digestive Leukocytosis and of Leukocytosis Following Exercise.—From their researches, Viale and Di Leo Lira drew the conclusion that increase of hydrochloric acid in the blood appears to be the cause of digestive leukocytosis. Leukocytosis consecutive to muscular exercise seems to be due to an increase of potassium in the blood—not to that of lactic acid.

Glycolytic Action of Lactacidogen.—Viale and Combes explain the mechanism of alcohol formation in muscles. Lactacidogen forming in the muscles causes splitting of glucose. This is accompanied by formation of carbon dioxide and alcohol. The reaction is not influenced by hydrocyanic acid or by insulin.

Anaerobic Formation of Alcohol in Muscles.—A series of toads' muscles were kept at rest in air or in nitrogen. Another series of muscles were tetanized while kept in air or nitrogen. In tetanized muscles in nitrogen, the amount of alcohol was considerable. In the others, the traces were insignificant.

Médecine, Paris

8: 165-240 (Dec.) 1926

Hygiene and Infectious Diseases in 1926. L. Tanon.—p. 165.
Herpes and Herpes Zoster. C. Flandin.—p. 189.
Various Forms of Malarial Hematozoa. M. Leger.—p. 192.
*Cholecystitis of Amebic Origin. J. Trabaud.—p. 197.
*Vesicatory Ichor in Prevention of Infectious Diseases. P. Modinos.—p. 201.
*Nervous Disorders of Verminous Origin. F. Moutier.—p. 204.
*Measures for Averting Serum Sickness. J. Pignot.—p. 211.
*Value of Dick Test in Scarlet Fever. G. Ichok.—p. 223.
*By-Effects of Smallpox Vaccination. Rivalier.—p. 231.

Cholecystitis of Amebic Origin.—Trabaud found living amebas in the gallbladder bile in several cases of cholecystitis. The diagnosis was suggested by the microscopic examination of the stools, by the blood picture and the emetine test. Amebic cholecystitis should be disinguished from amebic pseudocholecystitis, in which the liver is the seat of amebas. Amebic cholecystitis may be secondary to dysentery; it may also be primary. In the latter case, the amebas are carried from the intestine to the gallbladder by the blood stream. Emetine treatment supplemented by arsenicals should be administered and repeated at certain intervals.

Ichor from Vesicatory Blisters Used in Prevention of Infectious Diseases.—Modinos applied vesicants to convalescents from measles and from influenza, and used the blister fluid in prevention of the corresponding disease. A case is described in which it happened that fourteen children had been in contact with a child with measles. Children between 3 and 5 years of age were injected with 3 Gm. of the fluid; older children, with 5 Gm. About 20 Gm. of the fluid were obtained from two vesicatory blisters produced in another child of the family, recovered from measles. None of the children injected contracted measles; while, among the noninjected, two acquired the disease. He suggests the use of 1 cc. of the ichor for each year of age; 10 cc. for children up to the age of 15. A dose of 10 cc. of blister fluid from influenza convalescents was injected in patients with influenza. An attenuation of the disease was manifest. The dose should be tripled if the fluid is obtained from persons who have long been recovered from the disease. The ichor need not be decanted or heated. This method never caused any complications.

Nervous Disturbances from Intestinal Worms.—Nervous phenomena accompanying helminthiasis may be of the sensory, neuralgic, polyneuritic or rheumatic type. There also may be motor disturbances, appearing under the form of paresis or paralysis. The connection of convulsions with the presence of worms, Moutier says, is open to discussion. Meningitis from helminthiasis may simulate a tuberculous or a cerebrospinal meningitis. Mental disorders, such as night terrors or delirium, are observed. Infestation with ascarides may cause neurasthenia, characterized by a condition of pessimism and unfitness for any occupation. The verminous origin of the nervous disturbances is confirmed by their disappearance after expulsion of the parasites. If they persist, it is clear that the presence of the worms was a coincidence.

Measures for Prevention of Serum Accidents.—Pignot points out the measures capable of averting morbid phenomena after injections of a serum. The use of heated, preserved or purified serums may avert accidents developing after the first injection. In case of subcutaneous reinjections, first 5 cc. of the serum should be introduced slowly; the total therapeutic dose is injected fifteen minutes later. In case of intraspinal reinjections, first 1 cc. of the serum is injected; the therapeutic dose, two hours later. It is well to have the reinjections preceded by an intramuscular injection of 0.005 cc. of a 1:1,000 solution of epinephrine. Bourcard's method is valuable in testing the patient's susceptibility toward a serum. One-tenth cubic centimeter of the serum is injected subcutaneously into the forearm. In case of an existing hypersensitiveness, an intense local reaction is observed. Otherwise, the reaction is nil.

Value of Dick Test in Scarlet Fever.—From a comparative study of the researches of the Dicks and Di Cristina, Ichok draws the conclusion that the Dick test and preventive vaccination with streptococcus toxin are of greater value in practice.

By-Effects of Smallpox Vaccination May Be Averted.—Rivalier lists the measures by means of which by-effects of smallpox vaccination may be avoided or at least reduced. Hence, he says, there is no ground for the antivaccinationists' alarm.

Presse Médicale, Paris

35: 369-384 (March 23) 1927

Lithiasis of Common Bile Duct and Hepatic Ducts. M. Chiray and R. Degos.—p. 369.
*Appendicitis on the Left Side. R. Bloch.—p. 373.

Two Cases of Appendicitis on the Left Side.—In one of Bloch's patients with appendicitis, the pain was on the left side, while the cecum was situated normally. In the other patient, the pain was on the right side, although the cecum was situated in the left iliac fossa. The cases confirm the fact that there is a clinical and an anatomic form of left appendicitis. The clinical form is observed when the appendix is long and is situated transversely. In these cases inflammation is limited to the extremity of the organ. The diagnosis of a left appendicitis may be made by the aid of roentgen rays; usually it is established only at operation. A median incision for appendectomy is advisable in cases in which the appendix is presumably lodged outside of the right iliac fossa.

35: 385-400 (March 26) 1927

*Local Anesthesia in Treatment of Visceral Pains. M. Roch and E. Frommel.—p. 385.
Serum Treatment of Scarlet Fever. C. Zoeller.—p. 385.
Study of Pigments. L. Binet.—p. 388.

Local Anesthesia in Treatment of Pains Connected with Diseases of Viscera or of Serous Membranes.—Roch and Frommel inject 10 cc. of a 0.5 per cent solution of procaine hydrochloride subcutaneously in the region where the pain is most severe. They used the method with good results in eighteen patients with angina pectoris, acute pericarditis, pleuritis, cholecystitis, biliary colics, gastric ulcer, cancer of the stomach and splanchnoptosis with lumbar pain. Violent pains were relieved for several hours, sometimes permanently. Another advantage of the treatment consists in bringing about relaxation of muscles, which facilitates palpation. The disappearance of the pain, however, should never be an excuse for deferring an urgent operation.

Schweizerische medizinische Wochenschrift, Basel

57: 217 240 (March 5) 1927

*Fever Treatment of General Paralysis P Wurz —p. 217.
Angina Pectoris After Excitation Bischoff —p 218
*The Blood After Roentgen Irradiation A Gigon and M. Lüdin —p 221.
*Influence of Food on Blood, Urine and Feces. E Tschopp —p 223.

Fever Treatment of General Paralysis.—Wurz urges early treatment with malaria It is wrong to wait for the development of grave mental symptoms

The Blood After Roentgen Irradiation.—Gigon and Ludin found that food influences the reaction of rabbits to roentgen irradiation The total carbon and nitrogen of the whole blood become lower and the blood sugar higher on an ordinary diet, on oats or during fasting, regardless of the dose of rays applied Rabbits fed on green fodder react with a marked increase in the total carbon (up to sixty times more than could be accounted for by the hyperglycemia), without a proportionately large increase in nitrogen.

Influence of Food on Blood, Urine and Feces.—Tschopp noted a considerable increase in blood cholesterol in rabbits fed on oats The food also had a distinct influence on the calcium and phosphorus metabolism He believes that the differences in the reaction of irradiated rabbits (mentioned in the preceding abstract) may be due to changes in the cholesterol metabolism

Pediatria, Naples

35: 225 288 (March 1) 1927

Cutivaccination in Whooping Cough V Nalli —p 225
Hypacusia in Typhoid A Zallocco —p 239
Fusospirillary Mastoiditis L Leto —p 242
Survey of Italian Pediatrics F Lo Presti Seminerio —p 248.

Policlinico, Rome

34: 308 342 (Feb 28) 1927

*Avoiding Pain in Surgical Treatment. D Taddei —p 307.
Treatment of Tetanus F Fattori —p 311
Treatment of Tetanus with Barbital A Martini.—p 314

Avoiding Pain in Treatment.—Taddei regards unnecessarily inflicted pains as enemies of surgery. They can be avoided by gentle manipulations and by the use of anesthesia. A superficial ether anesthesia, which is just sufficient to abolish the sensation of pain, should be used more frequently.

34: 343 378 (March 7) 1927

*Menstrual Fever in Tuberculosis S Trentini —p 343.
*Neurosyphilis E Banchieri —p 350.
Syphilis of the Cerebral Vessels G B Podesta —p 352.

Menstrual Fever in Tuberculosis.—Trentini believes that slight elevation of temperature, preceding menstruation by two days and disappearing with it, indicates, as a rule, latent tuberculosis. If the fever lasts for a few days after menstruation, it may be a sign of an active tuberculous focus

Neurosyphilis.—Banchieri reports a case of tabes in a young woman who had normal reactions in the cerebrospinal fluid during the early secondary stage (six years previously).

Riforma Medica, Naples

43: 193 216 (Feb 28) 1927

Diagnosis and Treatment of Nephritis A Barlocco —p. 193.
*Pituitary and Rhinopharyngeal Infections. S Citelli —p 197.
Subhepatic Appendicitis C. Bertone —p. 201
Typhoid Pleurisy. T Lucherini —p. 211

Pituitary and Rhinopharyngeal Infections.—Citelli reviews his clinical and experimental investigations on alterations of the pituitary gland induced by diseases of the rhinopharynx and of the sphenoid sinus.

Anales de la Facultad de Medicina, Montevideo

11: 641 708 (Oct) 1926

Role of Alkalosis and Acidosis in Postoperative Complications Varela Fuentes and P Rubino —p 641.
Prognostic Value of Postoperative Achloruria. J. C Estol —p 690
*Physiologic Action of Parathyroid Extract. H. J. Rossello and L M. Petrillo.—p 698

Physiologic Action of Parathyroid Extract.—Rosselló and Petrillo's experiments on dogs confirmed the hypercalcemic effect of parathyroid extract. However, from seven to twelve injections, of 20 or even 40 units each, were necessary when the animals (white fox terriers) were kept in a clean but dark basement. The interesting feature was that on moving them to a well lighted room, the hypercalcemia as well as the asthenia and dyspnea increased with startling rapidity.

Archivos Arg. de Enf. del Ap. Digest., Buenos Aires

2: 161 296, 1926

*Studying the Physiology of the Bile Ducts J. Carrére.—p. 161.
Endolimax Nana. D Greenway and D F Greenway —p. 174.
Acute Postoperative Necrotic Pancreatitis. A. J. Bengolea and A. J. Pavlovsky —p 179.
Ectopic Cecum in Surgery of the Appendix. D. Del Valle.—p. 188.
Pseudotumors of the Stomach. A Navarro and E Grenci —p 193.
Acute Duodenitis G. Segura —p 204
Retractile Mesenteritis J. J Spangenberg and O Copello —p 213.
Duodenal Drainage in Hepatic Echinococcosis J. C Galan and J. *Pineiro Sorondo —p 223*
Treatment of Diabetic Retinitis. A. Raffo —p. 235.

Glucose in the Study of the Bile Ducts.—According to Carrére, glucose exerts a vigorous stimulating influence on biliary function, either directly or indirectly. It should therefore be used instead of magnesium sulphate for purposes of cholecystography or duodenal drainage. A number of roentgenograms are published.

2: 297 465, 1927

Vitamin B Unity. J. A. Collazo and A. E Goslino —p. 297.
*Determination of Vitamin B. J. A. Collazo.—p 305.
Intestinal Toxemia and Protozoa M. R. Castex.—p. 315.
Megasigmoid R Finochietto —p. 341
Syphilitic Gastric Linitis. J. R. Goyena.—p 355
Splenectomy in Hemorrhagic Purpura. A. Ceballos and M. Spangemberg —p 368
Acute Abdominal Diseases. R. E. Pasman —p 392
Treatment of Glenard Lane's Disease. T. Martini and J. Comas —p. 397.
Influence of Trauma on Stenosis and Dilatation of the Esophagus. J. M. G Galvan —p. 416.

Determination of Vitamin B.—The method described by Collazo accepts as a standard the amount of vitamin B necessary to maintain the weight of experimental pigeons during seven days, while the animals receive a measured diet lacking absolutely in vitamin B.

Brasil-Medico, Rio de Janeiro

41: 223 246 (March 12) 1927

Two Cases of Plague. A. Renzo —p. 223.
*Location of Spirochaeta Pallida in General Paralysis A. C. Pacheco e Silva —p 227
The Tabetic Bladder and a New Cystoscopic Sign. S. Perlmann.—p. 230.

Location of Spirochaeta Pallida in General Paralysis.—Pacheco e Silva studied the brains of fifty-six patients with general paralysis, three of them inoculated with malaria. Illustrations show the condition found. The spirochetes do not enter the nerve cells. On the contrary, these act as a barrier. After some cells have been destroyed, the organisms migrate elsewhere They accumulate around capillaries and small vessels, crossing from these to the nervous structures. Spirochetes prefer bifurcation points for crossing, as it seems easier to break through there. They were especially abundant in the second and third layers of the pyramidal cells at the level of the frontal lobe. They were rarely found in the centrum ovale or at the level of the meninges, and never around meningeal vessels. They were detected in the lenticular nucleus and in all the cortical regions, but not so often as in the frontal region. It was difficult to discover any in the cerebellum, even when the lesions were conspicuous. They were found in the brain stem in a case of taboparalysis, and in the medulla in a number of cases of taboparalysis and tabes. Intra-arachnoid therapy is not consistent with these observations.

41: 247-270 (March 19) 1927

Aortic Signs of Syphilis in Children Martagão Gesteira.—p. 247.
*Modified Staining Technic for Spirochaeta Pallida and Other Spirilla. A Cerqueira —p 258.

Staining of Spirochaeta Pallida.—Cerqueira describes a modification of Hollande's technic, asserting that it is simpler, quicker and more effective.

Crónica Médica, Lima, Peru

43 : 305 348 (Nov) 1926

Spinal Fluid Hyperalbuminosis in Malaria J V Reategui —p 314 C td
Autoserotherapy in Hebra's Prurigo E Sotelo Z —p 322

43 : 349 392 (Dec) 1926

*Epidemic Encephalitis in Peru L D Espejo —p 349 C'cn
Treatment of Keratoconus L Chavez Velando —p 371
Culture of Smallpox Virus in Vitro R Flores Cordova —p 377

Epidemic Encephalitis in Peru —Espejo concludes his study of epidemic encephalitis There were about fifty cases in Lima between 1919 and 1924 The death rate averaged 13 per cent This is much lower than in Europe or in other American countries

44 : 3 32 (Jan) 1927

Enterococcus Infection of the Blood R E Ribeyro —p 4
The Physician's Responsibility G Fernandez Dav la —p 8 C td
*Pagniello's Sign in Malaria M Gonzalez Olaechea —p 17

Pagniello's Sign in Malaria —Gonzalez Olaechea tried to elicit Pagniello's sign in about 700 cases It was present in 90 per cent of the cases of malaria The phenomenon consists in an exquisite pain which develops when pressure is made over the left ninth intercostal space, between the posterior and middle axillary lines The sign is especially useful if the spleen cannot be palpated

44 : 33 64 (Feb) 1927

Treatment of Wrinkles Lagarde —p 33
The Physician's Responsibility G Fernandez Davila —p 43 C cn
*Spinal Fluid Hyperalbuminosis in Malaria J V Reategui —p 54 C cn

Increased Cerebrospinal Albumin in Malaria.—In ten normal subjects Reategui found from 0 012 to 0 025 per cent of albumin in the cerebrospinal fluid In thirty patients with malaria—no history of syphilis and a negative Wassermann reaction—the figures lay between 0 080 and 0 100 in hyperacute cases, between 0 075 and 0 090 in acute cases, and between 0 060 and 0 070 in chronic cases In many cases, neither the lymphocytes nor the polynuclears were increased In two thirds of the cases a frank hypertension existed Quinine does not influence the hyperalbuminosis

Deutsche medizinische Wochenschrift, Berlin

53 . 391 432 (March 4) 1927

Indications for Surgery in Jaundice M Kappis and E Fulde —p 391
Nature of the Syphilitic Blood Change H Sachs and A Klopstock —p 394
Limits of the Biologic Norm H Gunther —p 396
Legalized Abortion in Russia H Naujoks —p 400
Blood Sugar in Rabbits M Levai and O Waldbauer —p 403
*Maltose and Pentoses in Urine B Klein —p 405
Tumors of the Brain E Siemerling —p 406
Treatment with Minerals K Lepehne —p 408
*Supply of Pancreatic Glands F Laquer —p 409
'Sanocrysin' Treatment of Lupus J Callenberg —p 410
Ascarids in the Bladder M Carsten —p 411
Grave German Measles P Zadik —p 412
*Alcohol in Treatment of Whooping Cough A Reiche —p 412
Simplified Orthodiagraphy of the Heart E Kruger —p 413
Holder for Test Tubes L Lewisohn —p 413
Roentgen Ray Examination of Female Genital Organs R Zimmermann —p 413
Tuberculosis in Germany F Kellner —p 414
St Gallen Regulations for School Hygiene W Rosenthal —p 415
Accidents and 'Traumatic Neurosis H Seelert —p 416

Maltose and Pentoses in Urine.—Klein modified Castellani and Taylor s mycologic method for the determination of various carbohydrates in the urine He uses a thick emulsion of the micro organisms and tincture of litmus Typhoid and Shiga bacilli are useful for the differentiation of maltose, typhoid and paratyphoid B for that of arabinose

Supply of Pancreatic Glands —Laquer calculates that there is more than enough material available for the production of insulin

Alcohol in Treatment of Whooping Cough.—Reiche found alcohol (50 per cent) to be the effective agent of a secret homeopathic tincture used as a sedative in whooping cough

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Operating and Delivery Rooms W Benthin —p 433
*Query s Syphilis Serum P Manteufel et al —p 435
Measuring the Hardness of Roentgen Rays H Holthusen —p 437
Radiotherapy of Cancer P Lazarus —p 439 C td
*Langer s Immunizing Method Against Tuberculosis I Zadek and M Meyer —p 442
Typhoid in Gollnow K Englmann —p 444
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Serodiagnosis of Cancer L Suranyi —p 449
Marchionini s Shellac Sol Reaction E von Thurzo —p 450
Problem of Scarlet Fever Brunthaler and Wulffing —p 450
*Antitoxic Scarlet Fever Serum N Lunin —p 451
Remote Sequelae of Tracheotomy L Maas —p 454
Anesthesia with Ethyl Chloride Plus Cologne Water F Colmers —p 455
The Physician as Health Teacher Frey —p 455
The Physician and Mortality Statistics Bludau —p 457
The Machan Case " F Hahn —p 457

Quéry's Syphilis Serum —Manteufel, Richter and Worms made experiments on syphilitic rabbits with Query's alleged antisyphilitic serum The action was the same as the action of normal horse serum—namely, none

Langer's Immunizing Method Against Tuberculosis —Zadek and Meyer injected Langer's vaccine (dead tubercle bacilli) in nineteen infants continually exposed to tuberculosis All of them are still healthy (after from one half to two years) Not even roentgenologic symptoms of tuberculosis developed The method is unquestionably innocuous, and the authors recommend it for further trial

Antitoxic Scarlet Fever Serum —Lunin finds that a purely antitoxic serum gives the best therapeutic results in scarlet fever It should be as concentrated as possible and standardized

Klinische Wochenschrift, Berlin

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Embryonic Cells and Cancer Cells A Fischer —p 433
*Hemophilic Disturbance of Clotting E Frank and E Hartmann —p 435
Vital Staining of Urinary Sediments H Claus —p 439
*Arsphenamine Fast Recurrens Spirochetes J L Kritschewski —p 441
Hepatic Function Tests W Lowenberg et al —p 445
Lactic Acid in the Blood and Cerebrospinal Fluid in Eclampsia E Zweifel and R Scheller —p 450
*Serodiagnosis of Cancer H Kahn —p 452
*Kahn s Serodiagnosis of Cancer W Fregonneau —p 453
"Regression of Syphilis and Arsphenamine Schendel —p 454
Reply J Jadassohn —p 455
Ultraviolet Rays and Vitamin C in Cow's Milk P Reyher —p 455
*Glycolysis and Phosphates A Abraham and M Altmann —p 456
Hemitetany E Guttmann and M Steger —p 457
*Raynaud s Disease and the Pituitary E Bloch —p 457
Treatment of Malignant Tumors of the Bladder A von Lichtenberg —p 459
Experience in Giving Advice on Marriage Raecke —p 463

Hemophilic Disturbances of Blood Clotting —Frank and Hartmann found that the action of blood platelets is the same in normal and in hemophilic subjects Differences are due only to the adsorption of blood plasma, and they disappear after repeated washing of the platelets The blood in hemophilia contains substances which inhibit the change of proserozyme into serozyme Thrombin forms from the latter in the presence of calcium by the action of kinase contained in blood platelets Injections of normal whole blood or normal blood plasma, from which the proserozyme has been removed by treatment with tricalcium phosphate, restore the normal coagulability of the blood for a day or two

Arsphenamine-Fast Recurrens Spirochetes. — Kritschewski *found considerable differences in the therapeutic dose* necessary for different strains of recurrens spirochetes This is especially striking if the brain of the animal is examined for proof of cure

Serodiagnosis of Cancer.—Kahn describes the technic of his "albumin A reaction" for serodiagnosis of cancer Fregonneau reports 87 5 per cent correct, 6 5 per cent doubtful and 6 per cent incorrect results in 440 tests (including 121 malignant tumors)

Glycolysis and Phosphates —Abraham and Altmann found a more pronounced glycolysis in the blood after the addition of a phosphate The loss in dextrose was greater than the increase in lactic acid They believe that this may be due to formation of a diphosphoric-glyceric acid

Raynaud's Disease and Pituitary.—Bloch reviews the relation of the pituitary to Raynaud's syndrome He had an excellent result in one case from injections of extract of the posterior lobe The injections were given at first two days apart, and later at longer intervals

Medizinische Klinik, Berlin

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Radium Treatment of Cancer P Lazarus —p 309 C td
*Insulin Hypoglycemia in Man O Klein —p 312
Palpation of the Abdomen A Luger —p 314
Arsphenamine Treatment and Injuries W Scholtz —p 314
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Gases in the Lungs and Intestines in the Cadaver and a Respiratory Test for the New Born Dyrenfurth —p 322
Pathogenic Paratyphoid Group F Hoder and F Smek —p 322
Abortion and Infanticide Kipper —p 327 C td
Cancer and Its Treatment O Strauss —p 331 C td
Medical Education Kulbs —p 342

Insulin Hypoglycemia in Man—Klein found that the administration of large amounts of water increases the hypoglycemic action of insulin, even in healthy subjects The action is still more pronounced in patients with hepatic diseases, who are also prone to react with a marked hypoglycemia to insulin alone

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*Injury to the Kidneys by Roentgen Rays G Domagk —p 345
Radium Treatment of Cancer P Lazarus —p 347 C cn
*Preventive Vaccination Against Tuberculosis H Langer —p 351
Malaria Treatment of General Paralysis K Brandenburg —p 353
Sigmoidoscopy in Elongation of the Colon S Plaschkes —p 355
Loose Bodies in the Joint H Schum —p 357
Sodium Sulphate Waters in Diabetes O Kauffmann Cosla and W. Zorkendorfer —p 359
Weakness of the Heart Not Due to Military Service Von Schnizer —p 366
Abortion and Infanticide Kipper —p 366 C cn
Cancer and Its Treatment O Strauss —p 369 C cn

Injury to Kidneys by Roentgen Rays—In 1921 Domagk observed the case of a child who died of nephritis about six months after roentgen-ray treatment of tuberculosis of the mesenteric lymph nodes He attributed the nephritis to roentgen-ray injury to the kidneys, and tried to verify his hypothesis experimentally In irradiated rabbits he found the tubules atrophic, while the glomeruli were comparatively well preserved The changes in the epithelium were more marked in overfed animals than in animals on a low diet He observed three more cases in human subjects in whom the kidneys were probably injured by roentgen-ray treatment of abdominal tumors Peculiar scars in the kidney were highly suggestive of it

Preventive Vaccination Against Tuberculosis —Langer believes that it is possible to immunize against tuberculosis with dead bacilli He recommends intracutaneous injection of a vaccine prepared from young cultures killed by boiling During the last three years, he traced the fate of fifty infants in tuberculous families who had been immunized by his method All of them are apparently healthy, while the average mortality of infants in such families ranges from 20 to 30 per cent

Munchener medizinische Wochenschrift, Munich

74· 353 392 (March 4) 1927

Changes and Aims in Surgery F Konig —p 353
*Cause of Onset of Labor H Knaus —p 355
Roentgen Ray Treatment of Cancer of the Breast W Wynen —p 357.
Occupational Treatment of Psychoses M Steger —p 359
Volume of Erythrocytes M Bessin —p 362
"Lime Milk Bile R Demel and W Schulze —p 363
*Prognosis of Labor After Abortions S M Klein —p 364
Staining of Tubercle Bacilli and Elastic Fibers H Axhausen —p 365
Treatment of Lupus in Dispensaries Axmann —p 366
Operation for Ruptured Tubal Pregnancy T Brunner —p 367
Undernourishment of Children Bonne —p 368
Medical Society of Nuremberg H Kirste —p 369
Lorenz Melchior Geist and Johann Simon Dietz Editorial —p 371
Pathologic Observations on Mummies A Sack —p 372
Utilization of the Superfluous Milk of Women M E Kayser —p 373

Cause of Onset of Labor.—Knaus concludes from his experiments that the natural termination of pregnancy depends on the physiologic maturity of the uterine musculature, evidenced by the increase in its autonomous motility and ability to contract

Prognosis of Labor After Abortions—Klein finds that artificial abortions injure the genital—including the endocrine—system of women They are a frequent cause of various complications in a subsequent labor The most important of these are adherence of the placenta, placenta praevia, hemorrhages, and atony of the uterus

74: 393 410 (March 11) 1927

Campaign Against Familial Syphilis C Noeggerath —p 393.
Blood Groups and Transfusion A Beck —p 398
Erythema from Light and Wave Length H Guthmann —p 402
*Treatment of Leprosy with Gold W H Hoffmann —p 405
Syphilis and General Paralysis I Pakheiser —p 406
*Treatment of Congenital Dislocation of Hip Joint I Hahn —p 409
Manslaughter Charge for Death of Infant During Birth A Doderlein —p 410
Lateral Granular Conjunctivitis L Saathoff —p 411
Spirochetes in Cerebrospinal Fluid W Schonfeld and H Krey —p 412
Megacolon K *Schilling* —p 416
Syphilitic Osteoperiostitis of Tibia in Infants K Sollgruber —p 417
Bladder Calculus Around a Safety Pin W Rodel —p 419
Injury by Anticonceptional Appliance A Ohnesorge —p 419
Inspection of the Eye L Heine —p 420

Treatment of Leprosy with Gold.—Hoffmann gained a favorable impression of the treatment of leprosy—especially of the eye—with gold salts

Treatment of Congenital Dislocation of Hip Joint.—Hahn admits that the so-called congenital dislocation of the hip joint is, as a rule, an acquired deformity (in predisposed infants) Nevertheless, he is in favor of early treatment in every infant in whom the roentgen-ray examination reveals a high and lateral position of the femur with a widened acetabular angle In an infant, it is, as a rule, sufficient to leave the plaster cast on for two or three months

Wiener klinische Wochenschrift, Vienna

10: 277 308 (March 3) 1927

Interrenal Genital Syndrome H Herschmann and R Neurath —p 277.
Permeability of Glass for Ultraviolet Rays W Hausmann and O Krumpel —p 279
Action of Corpus Luteum A Mahnert and H Siegmund —p 281
*Diphtheria Toxoid in Immunization S Progulski and F. Redlich —p 284
*Action of Theobromine Derivatives M Grossmann —p 285
Hemilateral Torsion Spasm R Chiari —p 287
Treatment of Fissure of Anus with Diathermy " J Kowarschik —p 289.
Constipation and Gynecology J Novak —p 290
Chronic Nontuberculous Cough in Children R Lederer —p 291
Minor Surgery V Orator —p 293
Borderline of Epilepsy F Redlich Supplement —pp 1 24

Diphtheria Toxoid in Immunization.—Progulski and Redlich are in favor of using a toxoid ("anatoxin"), instead of the mixture of toxin with antitoxin in preventive immunization against diphtheria

Action of Theobromine Derivatives.—Grossmann found that the sodium salicylate of theobromine, orally administered, acts as a diuretic only in subjects with anacidity With normal or hyper-acid gastric secretion, the drug may even cause retention of water This phenomenon is so constant that it could serve for the indirect determination of gastric secretion He recommends the use of pure theobromine or other derivatives of it in treatment

40. 309 340 (March 10) 1927

*Peptic Ulcer and Pulmonary Tuberculosis A Winkelbauer and A V. Frisch —p 309
Auscultation of Carotid in Aortic Diseases L Winkler —p 313
Cadmium Treatment of Malaria R Reitler —p 314
Local Anesthesia in Gynecology M Beckman —p 318
Tonsillitis After Operations on the Nose W Haardt —p 320
Treatment of Diarrhea F Kauders —p 322
Euthanasia E Zak —p 325
Intoxicating and Narcotic Poisons O Albrecht Supplement —pp 1 16

Peptic Ulcer and Pulmonary Tuberculosis—Winkelbauer and Frisch demonstrate the serious prognostic aspects of an association of *pulmonary tuberculosis with peptic ulcer* The general nutrition of the patient suffers from the latter On the other hand, surgical intervention is too frequently followed by fatal exacerbation of the pulmonary process The authors discuss the outlook of a preliminary pneumothorax treatment

Zentralblatt für Gynakologie, Leipzig

51: 1 64 (Jan 1) 1927

*Irradiation of the Ovaries and Offspring L Nürnberger —p 1.
*Id Martius —p 7
*Id W Flaskamp —p 14
*Surgical Treatment of Carcinoma of the Cervix F C Wille —p 18
Metastasis of an Extragenital Carcinoma in a Pessary Wound in the Vagina H Hinselmann —p 21
*Is There a Tubal Sphincter? P Schneider and F Eisler —p 23
Legal Aspect of Duration of Pregnancy F Engelmann —p 30
*Function of the Umbilical Cord and of the Amnion H Runge —p 46
*Anatomy of the Umbilical Vein H Runge and H Hartmann —p 49
Asymmetry of the Skull in the New Born G Frommolt and P Caffier. —p 51

Effect of Irradiation of the Ovary on Offspring..—Theoretically, and referring to animal experiments, Nurnberger discusses the question of injury to the offspring of women whose ovaries had been exposed to sterilizing doses of roentgen rays either before or after the ovulation concerned Injuries to the phan and the gene are considered separately There is not sufficient evidence in proof of the former His researches indicate that injury to the gene, if admitted, is of a recessive character and depends on more than one hereditary factor He elaborates some of the implications of these statements. Martius agrees that from observations on human beings it is as yet impossible to draw safe conclusions Animal experiments show all degrees of injury to the phan The analogy to injury to the germ cell from alcohol appears to be close, and from this it seems extremely probable that roentgen rays act as a germ poison, in the sense of injury to the phan, transmittible through several generations, but not, properly speaking, hereditary On the question of injury to the gene, we are still entirely in the dark It has been shown in experiments on insects that roentgen rays influence chromosome division, but the direction that the influence will take is not predictable Flaskamp maintains that the question of irradiation of the human ovary belongs in the realm of practical experience and not in that of speculation He regrets that in the reports of much experimental work no distinction is made between weak irradiation and a dose that produces temporary sterility He is disinclined to accept many reported cases of "roentgen-ray injuries" to the child as due to ovarian irradiation In the interval between irradiation and amenorrhea, conception is to be avoided, if it takes place, the pregnancy is to be interrupted, for the possibility of impregnation of an injured ovum exists at this time As to the rays acting as a germ poison, it has yet to be proved that germ poisons exist

Results of Surgical Treatment of Carcinoma of the Cervix.—Wille states that Wertheim's radical operation is the treatment of choice at the Charite women's clinic In 308 cases treated by surgery between 1916 and 1920, 45 8 per cent show a five year cure For the last of these years, the percentage was 56 05, for patients operated on in an early stage, 76 per cent, for patients whose tumors were already in the borderland stage between operability and inoperability 25 per cent Franz extended the limits of operability farther than do many Infiltration of the parametrium was not a contraindication, unless bone was involved Involvement of the vaginal wall, slight mobility of the uterus, complicating myoma or adnexal changes were not permitted to interfere, but carcinomatous involvement of the bladder was a contraindication No woman over 65 years old was submitted to operation Fourteen women were under 30 years of age

Is There a Tubal Sphincter?—Schneider and Eisler publish a series of roentgenograms of the uterus and tubes (obtained with a contrast fluid) which, they believe, demonstrate the existence of a sphincter at or near the uterine end of the tube

Function and Structure of the Umbilical Vein—Wharton's jelly does not contain capillaries Experiments in vitro indicate that it receives its nourishment by diffusion from the umbilical vein, which in certain respects differs anatomically from other blood vessels (arteries or veins) There is also a difference between the portion of the vein that lies within the child's body and the portion that lies without The former contains little muscle The walls consist of firm, collagenous connective tissue, with an abundance of elastic fibers Inside the abdomen, the vein resembles other veins in the new-born The difference in structure appears to be related to the permeability of the walls of the vein during this portion of its course.

51: 65 128 (Jan 8) 1927

Roentgen Ray Treatment of Inflammatory Diseases G A. Wagner —p 68.
Skin Tolerance Dose in Roentgen Units H T Schreus and L Schoenholz —p 71
Syphilis in the New Born Experimental E Philipp —p 74
Sex Prediction Reply to Slotta Luttge and von Mertz —p 76
Serologic Diagnosis of Pregnancy H Kamniker —p 78
Twenty Cases of Schubert's Vaginoplasty G. Schubert —p 80
Thickening of Mucosa of Portio Bordering on Congenital Erosion H Hinselmann —p 88
*Protest Against Abortion in Office Practice W Liepmann —p 90
Postnarcotic Intramuscular Injection of Lobelin H Hellendall —p 92
Myomas Free in the Pelvic Connective Tissue After Supravaginal Amputation of a Myomatous Uterus F Neugebauer —p 99
*Criminal Abortion with Lead Monoxide A Saturski —p 102

Abortion in Office Practice.—Liepmann urges that the legal practice of abortion shall be confined to hospitals, as is the case in Russia He also urges his "handkerchief control' of the blood lost and of the fetal fragments removed

Criminal Abortion with Lead Monoxide—A woman in the third month of pregnancy ingested 50 Gm of lead monoxide, a little at a time, with the aim of inducing abortion Four days after the first dose she entered the clinic, ostensibly for a perineoplasty, but with symptoms of bilateral pyelitis and neuritis Abortion was discovered to be imminent, and took place spontaneously twenty-three days later She recovered from the abortion and from the lead poisoning Saturski comments that the possibility of chemical poisoning should not be overlooked in cases of criminal abortion displaying toxic symptoms even though the popular methods are now instrumental

Zentralblatt fur innere Medizin, Leipzig

48: 265 388 (March 5) 1927

Early Syphilitic Glomerulonephritis J Hein —p 265

Acta Medica Scandinavica, Stockholm

65· 391 756 (Feb 28) 1927

Abdominal Reflexes of Pathologic Type G H Monrad Krohn —p 391 In English
Spontaneous Pneumothorax F Saltzman —p 395
Etiology of Korsakoff's Syndrome H Koster —p 399
So Called Agranulocytosis B Dahlen and F Wahlgren —p 407.
* Spontaneous Combustion" C D Josephson —p 424
Phagocytosis in Lymphoid Tissue K A Heiberg —p 443
*Treatment of Diabetic Coma K Faber and J E Holst —p 461
Hemisystoles in Ventricular Electrocardiogram A Stenstrom —p 474. In English
Size of Heart in Obesity K Secher —p 477
Anatomic Forms of Nephrosclerosis E Sjovall —p 484
Thyroid and Genital Glands E Lundberg —p 499
Nature of Neuralgia F Lindstedt —p 521
Peculiar Reaction of Endothelium of Vessels F Henschen —p 539
Irregular Shifting of Intestinal Contents H Ohnell —p 555
Beta Lysins and Bactericidal Substances of Leukocytes A Pettersson —p 562
Experimental Mycetoma in Rabbits J Reenstierna —p 566 In English.
*Epidemic Hepatitis R Ehrstrom —p 573
Postinfectious Hyperchromic Anemia with Eosinophilia. T. W Tallqvist. —p 582
Thiosulphate Test in Hypertension Without Albuminuria E Wikner —p 591
Anarthria in Meningo Encephalitis K Petren and S Ingvar —p 602 In English
Hereditary Polydactylia and Syndactylia O Thomsen —p 609.
Morphogenesis of Tabes S Ingvar —p 645
Prognosis of Subacute Yellow Atrophy of the Liver J Tillgren and H Blomstrom —p 675
States of Confusion in Insulinism T Sjogren and J Tillgren —p 684 In English
*Pneumothorax Treatment of Acute Pulmonary Abscess H C Jacobaeus —p 697 In English
Peripheral Form of Epidemic Encephalitis G Kahlmeter —p 709.

Pseudotuberculous Meningitis. A Wallgren.—p. 722.
Rheumatic Pancarditis P. F. Holst—p 751
*Hemodynamics in Rabbits in Health and Pneumonia F. Leegaard. Supplement XVII.—pp. 1 333. In English.

"Spontaneous Combustion."—Josephson discusses the question of spontaneous combustion in fictional literature (Marryat, Dickens and—more surprising—Zola) and in science. The possibility of spontaneous complete combustion in obese alcohol addicts had been regarded as a rare, but unquestionable fact up to 1848, when a famous criminal case gave the occasion for Liebig's annihilatory criticism Chronic alcoholism frequently leads to obesity, and fat burns more easily than other tissues Acute intoxication renders the subject insensible to pain and the intoxicated person may catch fire without noticing it. These are the only facts in the number of alleged authentic reports on spontaneous combustion

Treatment of Diabetic Coma.—Faber and Holst treat diabetic coma by insulin alone—without the addition of carbohydrates or other food When the patient improves, they start a vegetable diet with increasing amounts of fat In some patients, small doses of insulin (for instance, 24 units) may be sufficient In other cases, more insulin is necessary—for example, 64 units to start with, 40 units five hours later, and 20 units after six hours more, according to the blood sugar level.

Epidemic Hepatitis.—An epidemic in Finland is considered by Ehrstrom as providing justification for Lindstedt's theory that a large proportion of cases of catarrhal jaundice are manifestations of a specific epidemic hepatitis which is not identical with Weil's disease It is possible that some cases of acute atrophy of the liver and even biliary and hypertrophic cirrhoses may belong to the same group

Pneumothorax Treatment of Abscess.—Jacobaeus reports three successful cases of treatment of pulmonary abscess by pneumothorax

Hemodynamics in Rabbits in Health and Pneumonia—Leegaard found that the quantity of blood expelled by the heart in a given unit of time as well as in a single beat, is considerably increased in rabbits suffering from pneumonia The work of the heart is augmented because of this increase in minute-volume The respiratory consumption of oxygen is increased during pneumonia The difference between the oxygen content in blood from the left and from the right side of the heart is less than normal The increase in the respiratory consumption of oxygen and in the output of blood from the heart may be ascribed partly to the local process in the lungs For the main part, however, it must be viewed in connection with more general factors (increased metabolism).

Hospitalstidende, Copenhagen

70: 121 144 (Feb 10) 1927

Photo Activity and Antirachitic Property E Rekling—p 121
Polyarthritis After Evisceration of Eye Affected with Gonorrheal Conjunctivitis. H. U Møller—p 137

70: 145 172 (Feb 17) 1927

*"Sanocrysin" V. Henriques—p 145.

70: 173 196 (Feb. 24) 1927

Uric Acid and Gout. E Vollmond—p. 173.

"Sanocrysin."—Henriques asserts that "sanocrysin" has no bactericidal action against the tubercle bacillus. The use of such a large dose as Møllgaard gives should be abandoned. The action of "sanocrysin" on the organism is apparently not directly chemotherapeutic, but an indirect action on the pathologic tissue, analogous to the action of tuberculin.

Ugeskrift for Læger, Copenhagen

89: 165 184 (March 3) 1927

*Scurvy in Unmarried Men. E. Meulengracht—p 165.

Scurvey in Unmarried Men.—Meulengracht reports eight cases of scurvey caused by insufficiency of vitamin C in the food. The patients were unmarried laborers, and had principally been on a diet consisting of bread, butter, cheese, coffee, beer and brandy. The most prominent symptoms were large extravasations of blood in the subcutaneous tissue of the extremities. Hemorrhages into mucous membranes or the internal organs were not observed. Most of the patients presented typical gingivitis, with painful teeth, and anemia. The prodromal symptoms were feebleness, depression, drowsiness, chills, palpitation of the heart and loss of appetite. Six lemons, fresh vegetables and fruit were given daily, in addition to the normal diet. The scorbutic symptoms rapidly disappeared. Administration of iron increased the hemoglobin.

89: 185 202 (March 10) 1927

Neuroma of the Stomach Wall. H. Okkels—p. 135.
*An Epidemic of Malignant Sore Throat. C. Hvidt.—p. 136.
Michel's Agraffe G Rendtorff.—p. 138.

Experiences in a Malignant Sore Throat Epidemic.—In 1926, Hvidt studied 2,000 cases of sore throat among a population of 18,000, in Kolding, Denmark. Only twelve cases proved fatal. Hemolytic streptococci were isolated from the patients, but diphtheria bacilli were not found. The lesions were mainly in the tonsils. Twenty patients developed erysipelas of the face as a sequel of typical tonsillitis. The disease showed a tendency to formation of peritonsillar and lingual abscesses Morphine was avoided in the treatment. Intravenous injections of an acridine preparation had a favorable effect in cases with signs of septic infection.

89: 203 222 (March 17) 1927

*Gout F Faber—p 203.
Subacute Inguinal Lymphogranulomatosis M. C Lottrup—p 209.
Treatment of Erysipelas by Injection of Protein. J. C. Gerdes—p. 210.

Gout.—In the treatment of gouty arthritis, Faber differentiates three different stages of the disease: acute attacks, joint deformities and chronic anomalies of metabolism. In acute attacks, the patient should remain in bed. From 1 to 1½ liters of milk and from 3 to 5 mg. of colchicine in four doses at half hour intervals are given daily. The administration of colchicine is continued until diarrhea sets in; it is then discontinued The patients became free from pain in almost every case, and the acute attacks disappeared in a few days. In case of chronic metabolic disturbances, the patients should remain on a purine free diet. Treatment of chronic deformities of the joints does not differ from that in similar diseases In the infectious types of chronic polyarthritis, it is important to locate and remove the focus of infection In cases in which this is impossible, protein therapy gives good results. In a majority of polyarthritic cases, physical therapy proves useful. Salicylic preparations and cinchophen relieve the pain. The general arthritic condition is usually produced by pathologic conditions of the blood, muscles, or connective or subcutaneous tissues. In cases of asthenia and neurasthenia with symptoms of rheumatism, bromine and other sedatives act favorably, whereas baths or massage may cause exacerbations. Myopathy and infiltrations are counteracted by massage.

89: 223 246 (March 24) 1927

Blood Sedimentation Reaction. P. Götzsche.—p. 223.
Treatment of Lymphectasia and Ulcer of the Lower Extremities. G. Rendtorff—p 227
Malaria Treatment of Paralytic Dementia. V. Askgaard—p. 231.
Diseases in Infants Fed on Artificial Food. B. Krauffeldt.—p. 233.

89: 247 266 (March 31) 1927

Treatment of Hypertension with Liver Extracts. E. Møller—p. 247.
Metal Salt Treatment of Erysipelas. C G. Budde Lund.—p. 249.
Treatment of Colles' Fracture. V. Eskelund—p 249.
A Prothesis in Natural Colors. I. Osner—p. 255.
*"Sanocrysin" Dermatitis Treated Intravenously with Sodium Thiosulphate G Gelbjerg Hansen.—p 256.
Treatment of Diseases of the Middle Ear with Calot's Liquid. A. Buch.—p. 256.

"Sanocrysin" Dermatitis Treated with Intravenous Injection of Sodium Thiosulphate.—Buch reports the case of a woman who developed a severe dermatitis of the arm after a dose of 0.50 Gm. of "sanocrysin." Daily injections of 1 Gm. of sodium thiosulphate in a 10 per cent solution, supplemented by the application of a petrolatum zinc ointment, cured her in seven days

The Journal of the
American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 88, NO. 25 CHICAGO, ILLINOIS JUNE 18, 1927

THE DIET IN THE TREATMENT OF CARDIAC FAILURE *

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The importance of the diet in cardiac failure has apparently not been fully appreciated. The Karell diet is usually mentioned in the discussion of the treatment of advanced cardiac failure with edema. While this diet greatly promotes the elimination of excess fluid, it is obviously inadequate because of its low energy value. Various modifications of the Karell diet have been recommended, but in each instance the caloric value has not been sufficient to maintain a normal metabolism.[1]

In advanced cardiac failure, not only the heart but also the entire body is in an exhausted condition. The diet should thus not impose an excess load but still provide sufficient energy. The sodium chloride should be reduced and the liquid intake restricted when edema is present, though not to the degree ordinarily practiced. Milk is a very desirable constituent of the diet because of the ease with which it is assimilated and its low sodium chloride content. Other foods, however, are apparently equally efficient. During the World War, the scarcity of milk in some countries prohibited its use in the diet of cardiac failure and led to the employment of substitutes which, in some instances, were reported to produce more satisfactory results than the Karell diet.[2] The liquid intake was limited to 1,000 cc. and was given in the form of water and fruit juices. To this was added 1 Kg. of potatoes or bananas (the former were cooked without salt). The diet was served in five portions daily. The major portion of the energy was provided by carbohydrates. The favorable results, however, were ascribed to the low sodium chloride and the high potassium content of the potato and banana. The explanation is in accord with the use of potassium and calcium salts in the treatment of edema, especially of nephritic origin.[3]

The importance of carbohydrate as a source of energy to the body and particularly to the heart suggests the use of sucrose and dextrose solutions in the treatment of cardiac failure. Goulston,[4] Carter,[5] Dingle[6] and MacGregor[7] have observed marked improvement in patients with advanced cardiac failure following the addition of sucrose to the diet. They recommend that from 2 to 4 ounces be taken daily. In some instances, the cardiac function was restored after the usual forms of diet and drugs had failed. Büdingen,[8] Pfalz[9] and others have recorded favorable results after the administration of dextrose solution intravenously.

More recently, Edmunds and Cooper[10] have studied the effects of dextrose solution on the circulatory failure produced by the subcutaneous injection of diphtheria toxin. In those animals in which the circulatory collapse was extreme and in which the usual cardiac stimulants had very little effect, the introduction of dextrose solution (10 per cent) into the vein was followed by marked improvement in the heart and an increase in the blood pressure. They regarded the dextrose as a life-saving measure in many instances, and state that they were able to save the animal if the dextrose was injected into the vein before the heart stopped. These results were attributed to the energy provided by the dextrose.

Clinical and experimental observations seem to indicate that milk and carbohydrates, particularly those forms of the latter which are easily assimilated, should constitute the major portion of the diet in cardiac failure. A diet was thus constructed which has an energy value of 2,100 calories and consists of 44 Gm. of protein, 110 Gm. of fat and 222 Gm. of carbohydrate. It is served in the form of milk, cream, butter, eggs, vegetable purées, cooked cereals and fruit juices. The carbohydrate is further increased by the addition of sugars, as dextrin-maltose, dextrose and lactose. Small and frequent feedings are given to avoid gastric retention and fermentation. When edema is present, the liquid intake is limited to 1,500 cc., and the salt is reduced to a minimum. Usually on the third or fourth day other foods, as jelly, crackers (salt free), toast and stick candy, are added. Later, about the eighth day, depending on the condition of the patient, puréed fruits and additional puréed vegetables are incorporated in the diet. Gradually, the consistency of the food is changed from that of the soft to the light diet. In some instances, following the elimination of the excess fluids, particularly in those patients who are greatly undernourished, the energy value of the diet is increased to approximate 3,000 calories. However, when the patient is obese, the diet is sufficiently reduced to permit a gradual loss in weight.

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* Read before the Portland Academy of Medicine, Portland, Ore., Oct. 14, 1926.

* From the Department of Internal Medicine, State University of Iowa College of Medicine.

[1] Potter, N. B.: New York M. J. **103:** 450 (March 4) 1916. Taussig, A. E.: Interstate M. J. **21:** 1317 (Dec.) 1914. Goodman, E. H.: The Use of the "Karell Cure" in the Treatment of Cardiac, Renal and Hepatic Dropsies, Arch. Int. Med. **17:** 809 (June) 1916.

[2] Von Jagic, W., and Salomon, H.: Wien. klin. Wchnschr. **30:** 559 (May 3) 1917. Salomon, H.: Deutsche med. Wchnschr. **45:** 320 (March 20) 1919. Isenschmid, R.: Schweiz. med. Wchnschr. **50:** 381 (May 13) 1920.

[3] Rockwood, Reed; and Barrier, C. W.: Calcium Treatment for Edema, Arch. Int. Med. **33:** 643 (May) 1924. Keith, N. M.; Barrier, C. W., and Whelan, Mary: Treatment of Nephritis and Edema with Calcium, J. A. M. A. **83:** 667 (Aug. 30) 1924. Gibson, R. B., and Larimer, R. N.: Generalized Edema Immediately Following Insulin Control in Diabetes Mellitus, J. A. M. A. **84:** 491 (Feb. 14) 1925.

[4] Goulston, A.: Brit. M. J. **1:** 615 (March 18) 1911.

[5] Carter, A. H.: Brit. M. J. **2:** 1401 (Nov. 25) 1911.

[6] Dingle, H.: Brit. M. J. **1:** 56 (Jan. 13) 1912.

[7] MacGregor, G. S.: Brit. M. J. **1:** 158 (Jan. 29) 1921.

[8] Büdingen, T.: Deutsches Arch. f. klin. Med. **128:** 151 (Dec.) 1918; Schweiz. med. Wchnschr. **53:** 395 (April 19) 1923.

[9] Pfalz, W.: Deutsche med. Wchnschr. **45:** 1181 (Oct. 23) 1919.

[10] Edmunds, C. W., and Cooper, R. G.: Action of Cardiac Stimulants in Circulatory Failure Due to Diphtheria, J. A. M. A. **85:** 1798 (Dec. 5) 1925.

The efficiency of the diet was studied in the following manner:

All patients with cardiac failure, with individual exceptions, were treated in the same way. They were put to bed at absolute rest. When necessary, codeine or morphine was administered hypodermically at bedtime to promote sleep. Cascara or other mild laxatives were employed when needed to produce a daily bowel movement. From 15 to 20 minims (0.9 to 1.25 cc.) of tincture of digitalis was prescribed three or four times daily, depending on whether or not the patient had previously taken the drug. The routine hospital soft diet was served. The liquid intake was limited to 1,500 cc., and the urinary output was recorded. The patient was weighed daily when the condition permitted. If after a period of from five to seven days there was no demonstrable change in the general condition and the weight remained stationary, the cardiac diet was prescribed. The favorable influence of the diet is illustrated by the following patients:

REPORT OF CASES

Case 1.—H. B., aged 61, admitted to the University Hospital, May 18, 1926, because, chiefly, of shortness of breath and swelling of the feet, stated that he had been short of breath for one and one-half years. The clinical picture was that of advanced cardiac failure. The heart was markedly enlarged. There was a basal diastolic and apical systolic murmur. The systolic blood pressure was 160 and the diastolic, 48. There was a general anasarca. The urine showed considerable albumin and occasional hyaline and granular casts. In the electrocardiogram the T deflection was negative in each lead. The weight on admission to the hospital was 165 pounds (75 Kg.). The routine treatment was prescribed. The patient complained of having a diarrhea on the second day. During the following ten days he had from five to eleven watery stools daily, and it was necessary to administer powdered opium to control the diarrhea. After the diarrhea subsided, the weight gradually increased and on the twenty-first day was 171 pounds, or 77.6 Kg. (chart 1, upper curve). The cardiac diet was then prescribed. Thereafter, there was a gradual loss in weight to 144 pounds (65.3 Kg.). The excess fluids had been eliminated, and the symptoms of cardiac failure had disappeared. Coincident with the reduction in weight there was an increase in the daily urinary output to 1,800 cc.

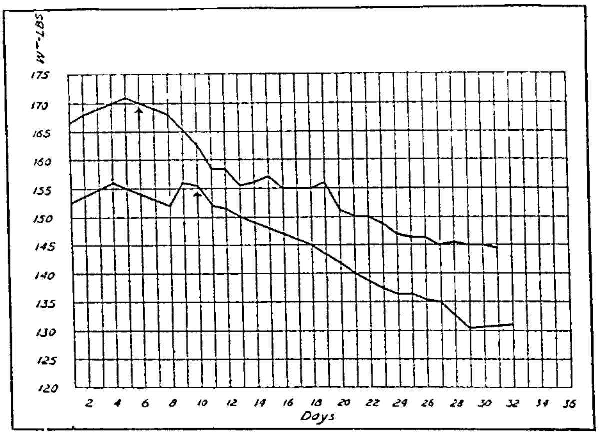

Chart 1.—In this and subsequent charts, arrow indicates day on which the cardiac diet was begun. Upper curve, case 1. The patient was not weighed between the fifth and eighth day because of his general condition. Lower curve, case 2.

Case 2.—F. M., aged 46, admitted to the University Hospital, March 23, 1926, complained, on entrance, of shortness of breath and substernal pain, which radiated to the arms. This was his sixth admission to the hospital. When first seen in July, 1923, he complained of shortness of breath on slight exertion. He was found to have a tertiary syphilis involving the central nervous system and the aorta. The aorta was dilated and the heart increased in size. At the time of the last admission, the patient was very cyanotic and dyspneic. There was a marked pulsation of the carotid arteries and a heaving of the entire precordium. The apex impulse was located in the sixth interspace at the anterior axillary line. The width of substernal dulness in the second interspace was 9 cm. There was a rough systolic and a faint diastolic murmur at the base, and a gallop rhythm at the apex. There were numerous moist râles in the bases of both lungs. The liver extended 6 cm. below the costal margin. The systolic blood pressure was 190 and the diastolic, 120. The urine contained a trace of albumin and occasional hyaline and granular casts. The electrocardiogram showed a marked left ventricular preponderance, and the T deflection was negative in leads I and II. The Wassermann reaction of the blood was strongly positive. The patient weighed 144 pounds (65.3 Kg.). He was treated in the usual manner, except that one-half ounce of magnesium sulphate was given daily before breakfast. During the first ten days the weight decreased to 135 pounds (61 Kg.), and there was some improvement in the general condition. Later, however, the breathing became more difficult, the liver extended to the umbilicus, fluid appeared in the abdominal cavity, and the weight increased to 151 pounds (68.5 Kg.). Theophylline was administered, and a Karell diet ordered. There was some reduction in the weight. The diet was discontinued on the fifth day because of weakness of the patient. The weight gradually increased, and the abdominal cavity became more distended. The patient was very uncomfortable, and it seemed advisable to prescribe morphine during the day in addition to that at night. An abdominal paracentesis was done, and 2,500 cc. of clear straw colored fluid was removed. The fluid, however, rapidly returned. The magnesium sulphate was then discontinued and the cardiac diet ordered. The weight at this time was 155 pounds, or 70 Kg. (chart 1, lower curve). Thereafter there was a gradual loss of weight, the abdomen decreased in size, and the general condition improved. In three weeks, the weight was 137 pounds (62 Kg.), the fluid had practically disappeared from the abdominal cavity, and the liver edge receded to 6 cm. from the costal margin. The weight was further reduced to 131 pounds (59.4 Kg.). The edema had disappeared from the extremities, and there was no demonstrable fluid in the peritoneal cavity.

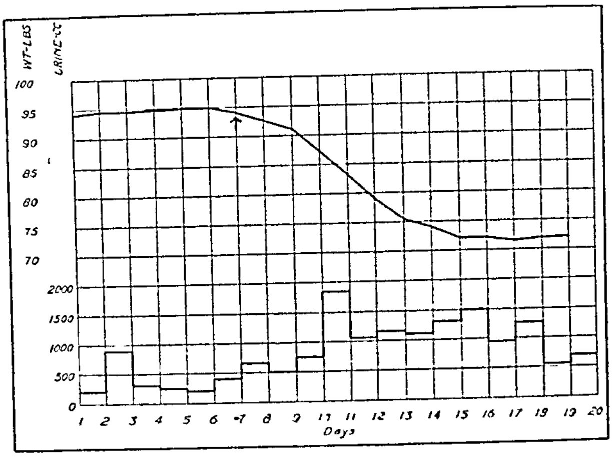

Chart 2.—Case 3.

Case 3.—E. M., aged 15, admitted to the University Hospital, July 25, 1926, because of shortness of breath, increase in the size of the stomach and swelling of the feet, had had rheumatic fever in December, 1925, involving several joints. Three days following the onset of the illness, he experienced pain in the precordium and became very short of breath. He was confined to bed for three months. In June the shortness of breath returned, the abdomen increased in size, and swelling of the feet was noticed. The examination indicated that the heart had been extensively injured by the rheumatic infection and that there was very probably an adhesive pericarditis. The abdomen was distended with fluid, and the edema of the legs extended above the knees. The temperature on admission was 101.2 F. and the pulse rate 135 a minute. The weight was 95 pounds (43 Kg.). During the first seven days in the hospital the weight remained stationary and the daily urinary output, except for one day, ranged from 200 to 400 cc. (chart 2). The temperature varied from 98.6 to 100. The pulse averaged approximately 120 a minute. The cardiac diet was ordered on the seventh day. Thereafter the weight rapidly decreased, and on the fourteenth day was 74 pounds (33.6 Kg.). Coincidently, the temperature subsided, the pulse rate diminished, and the urinary output increased.

CASE 4.—H. T., aged 54, when admitted to the University Hospital, Aug. 7, 1926, stated that he had been short of breath for more than two years and had noticed swelling of the feet since April. He was very dyspneic; the apex impulse was in the axilla, and the cardiac tones were distant. The heart rate was 120 a minute and regular except for an occasional premature contraction. The liver extended to the umbilicus, fluid was demonstrated in the peritoneal cavity, and there was extensive edema in the legs. The systolic blood pressure was 186 and the diastolic, 122. The urine contained albumin and a few hyaline and granular casts. The electrocardiogram showed a negative T deflection in leads I and II. The weight on admission was 213 pounds (96.6 Kg.). Six days later it was 213 pounds (chart 3, lower weight curve). The cardiac diet was ordered. During the next week the patient lost 13½ pounds (6 Kg.). The cardiac symptoms disappeared. He was discharged, September 24, weighing 195 pounds (88.5 Kg.). He did not follow instructions after leaving the hospital and returned again, October 27, in much the same condition as when first seen. The weight was 222 pounds (100.7 Kg.). Seven days later it was 220½ pounds, or 99.7 Kg. (chart 3, upper weight curve and urine curve). The cardiac diet was again prescribed, and there was a reduction in weight similar to that observed during the first period in the hospital.

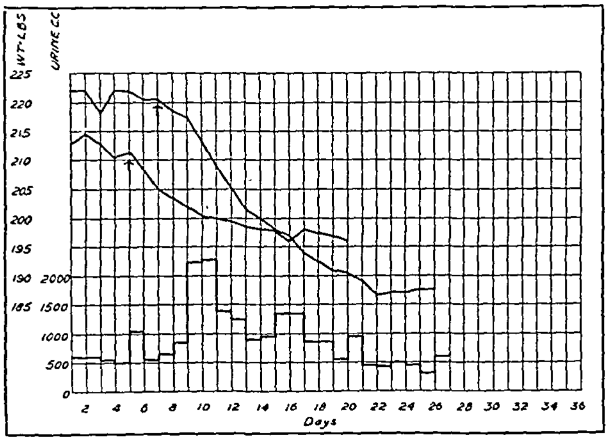

Chart 3.—Case 4: Lower weight curve, first admission to hospital; upper weight curve and urinary output, second admission.

CASE 5.—S. P., aged 66 (?), was first admitted to the University Hospital, Oct. 1, 1924, with shortness of breath, increase in the size of the abdomen and swelling of the feet. The shortness of breath was first noticed in March, 1924. He was examined and told that he had high blood pressure. When seen following the admission to the hospital, the conditions were those of advanced cardiac failure and extensive edema of the extremities. The heart was very large, the tones at the apex were muffled, and a rough blowing murmur was heard. The aortic second sound was moderately accentuated. An occasional premature contraction was noted. The liver extended 10 cm. below the costal margin. The systolic blood pressure was 110 and the diastolic, 80. The urine showed albumin and hyaline and granular casts. The T deflection of the electrocardiogram was negative in each of the three leads. The patient made a slow recovery and was discharged from the hospital, December 9, in fairly satisfactory condition. He returned home and was able to do light work until May, 1926. The shortness of breath returned and rapidly progressed until he was again admitted to the hospital, July 5, 1926. The patient seemed even more dyspneic than at the former admission, and there was a general anasarca. He was not weighed the first day because of the discomfort that slight exertion produced. The weights on the fourth and fifth days were 160½ and 161 pounds (72.8 and 73 Kg.), respectively (chart 4). The cardiac diet was begun on the sixth day, and during the following seven days the patient lost 21½ pounds (9.8 Kg.). The urinary output increased from 650 to 2,150 cc. The excess fluid was practically eliminated. The following day the patient had a cerebral accident and died three days later.

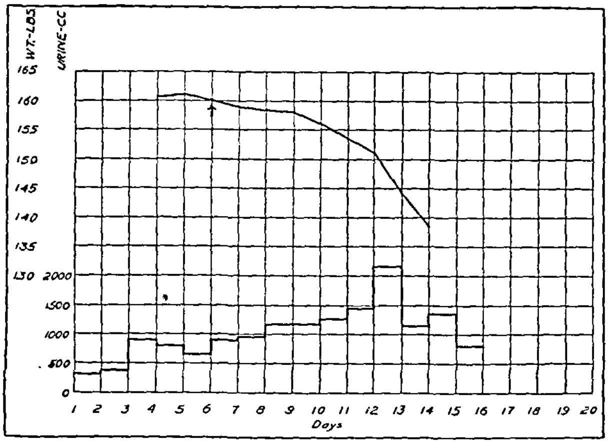

Chart 4.—Case 5.

COMMENT

These five patients were similar in that each had the clinical manifestation of advanced cardiac failure with extensive edema or even general anasarca. The treatment was the same in all instances. The duration of the control period was sufficient to permit digitalis effects before the cardiac diet was prescribed. It is questionable whether any of the patients would have eliminated the excess fluids without the change in diet. The course in two cases, prior to the time of instituting the cardiac diet, was progressively downward, and there was no appreciable improvement in the remaining three. The results observed in the second patient were most striking. It is to be recalled that theophylline, magnesium sulphate and the Karell diet did not alter the clinical course. The magnesium sulphate was discontinued when the cardiac diet was ordered.

These results emphasize the importance of diet in the treatment of cardiac failure. They demonstrate that a change in this feature of the treatment alone may be sufficient to promote the elimination of the excess fluid after the usual remedies have failed. The effectiveness of the diet is believed to be due to the energy value and the form in which the food is given. It is felt that patients with cardiac failure, especially those in whom the condition has existed for some time, should have at least a diet that will maintain a normal metabolism. This requirement has not been met, particularly when the Karell diet and its various modified forms have been employed. It is possible that insufficient nourishment may be responsible for the poor response to digitalis in some instances. The observations of Edmunds and Cooper[10] support this conception. It is to be recalled that digitalis and other cardiac stimulants had very little effect in the advanced circulatory collapse produced by the subcutaneous administration of diphtheria toxin, whereas following the introduction of glucose into the vein the action of the drugs was far more favorable. This possibility was further suggested by a patient recently under observation. He had the clinical manifestation of advanced cardiac failure with extensive edema of the extremities when admitted to the hospital. The auricles were fibrillating, and the cardiac rate varied from 130 to 140 a minute. He ate very little because of nausea and the distaste for food during the first five days in the hospital. He was given more digitalis than is ordinarily employed, yet there was no change in the cardiac rate and the course of the condition was progressively downward. At this time the administration of glucose (10 per cent solution) by rectal drip was begun. The following morning the patient voluntarily stated that he felt considerably better and expressed a desire for food. The cardiac rate rapidly decreased and the urinary output increased. The glucose solution was discontinued after another twenty-four hours, and recovery thereafter was uneventful.

The form in which the food is given is probably as important as the energy value of the diet. It is obvious that the food should not only have a low salt content, particularly when edema is present, but also be provided in a form that may be assimilated without imposing an excess load on the gastro-intestinal tract and the heart. While the favorable results of the cardiac diet are no doubt in part due to the low salt content, the energy supplied by the carbohydrates in the form of sugars is believed to be an important factor.

During the last year, the cardiac diet described has been employed in more than fifty patients. In only two was there excessive gas formation, and one had diarrhea. In each instance the conditions were controlled by temporary reduction of the carbohydrates. Later, the carbohydrates were increased without provoking a diarrhea or producing excess gas. The fruit and vegetable content of the diet is sufficient to produce usually one or two bowel movements daily. Rarely was it necessary to administer laxatives. It has frequently been necessary to vary the diet because of the taste or condition of the individual. In one patient with hyperthyroidism and a basal metabolic rate of plus 48 per cent, the protein was increased to 65 Gm. and the energy value to 5,500 calories. Two patients had a dislike for milk. In each, the milk was reduced and the protein replaced with an additional egg. Later, one of these patients overcame the distaste for milk and took any amount given him. An occasional patient objects to sweetened beverages; either jelly or stick candy was substituted for the sugars for a few days. Later, the patient was often willing to take additional sugar in the other foods.

In some of our patients, the twenty-four hour urinary excretion of nitrogen, chlorine and creatinine was determined. In one case (table 2) the figures for sodium, potassium and phosphorus are also included. The values for nitrogen and chlorine are, in general, in accord with the earlier workers. There was no evidence of a toxic nitrogen catabolism except in one patient. The chlorine excretion was increased with the elimination of the edema. The patients were undoubt-

Table 1.—*Cardiac Diet, Weighed and Approximated* *

MEALS			LUNCHES		
Breakfast	Gm		9 a. m.	Gm	
Milk	100	½ cup	Water	100	½ cup
Cream	66	¼ cup	or crushed ice	100	1 cup
Cereal (cooked)	120	½ cup			
Sucrose	10	3 teaspoonfuls	10 a. m.		
Glucose	10	6 teaspoonfuls	Orange juice	150	¾ cup
Dextrin maltose	10	0	Lemon juice	5	1 teaspoonful
			Sucrose	10	3 teaspoonfuls
Dinner					
Soup: Cream	132	½ cup	Glucose	20	6 teaspoonfuls
Soup: Potato	50	¼ cup			
Soup: Butter	10	2 teaspoonfuls	2 p. m.		
Ice cream	100	½ cup	Milk	100	½ cup
or junket †		½ cup	Cream	66	¼ cup
Milk	100	½ cup	Flavoring		
Water	100	½ cup	Dextrin maltose	12	4 teaspoonfuls
or crushed ice	100	1 cup	Sucrose	5	1 teaspoonful
Supper					
Soup: Cream	66	¼ cup	4 p. m.		
Soup: Milk	100	½ cup	Water	100	½ cup
Soup: Spinach ‡	50	¼ cup	or crushed ice	100	1 cup
Butter	10	2 teaspoonfuls			
Custard: Egg	50	1 egg	7 p. m.		
Custard: Milk	100	½ cup	Milk	150	¾ cup
Custard: Lactose	10	3 teaspoonfuls	Dextrin maltose	10	3 teaspoonfuls
Custard: Glucose	10	3 teaspoonfuls	or candy		1 stick

* The composition of the weighed diet (calculated) is protein, 44 Gm.; carbohydrate, 220.6 Gm.; fat, 109 Gm., and calories, 2,076. Additions to the diet are made between the fourth and the tenth day, beginning with toast, jelly, salt-free crackers, and butter; sieved fruit and baked potato are included later. If the diet is first increased on the fourth day, the patient may be receiving as final additions to the basic diet protein, 37 Gm.; carbohydrate, 112.3 Gm.; fat, 25 Gm., and calories, 718, as follows: breakfast, toast, 20 Gm.; butter, 10 Gm.; jelly, 20 Gm.; dinner, baked potato, 1, sieved fruit juice, 100 Gm.; toast, 20 Gm., butter, 10 Gm., supper, sieved fruit, 100 Gm., toast, 20 Gm.; butter, 10 Gm. Stick candy may be substituted anywhere in the diet for the equivalent amount of sugar.

† Milk, 100, cream, 66, sucrose, 5; dextrin maltose, 10, and a half junket tablet. When junket is served, the milk at 7 p. m. is reduced to 100.

‡ Pureed spinach. Other vegetables may be substituted.

Table 2.—*Total Nitrogen and Mineral Metabolism in Case 4*

Date	Weight, Pounds	Volume, Cc.	Specific Gravity	Total Nitrogen, Gm.	Creatinine, Mg.	Chlorine (Sodium Chloride) Gm.	Sodium, Gm.	Potassium, Gm.	Phosphorus, Mg.
10-29	218	510	1.036	6.54	632	3.62 (5.91)	2.61	2.79	532
30	222	520	1.032	5.93	723	3.61 (5.93)	0.90	2.51	416
31	222	1,060	1.028	10.54	1,272	7.69 (12.61)	5.07	1.37	604
11-1	220½	580	1.025	5.68	597	4.36 (7.18)	2.82	2.32	414
2*	220¾	610	1.025	6.45	598	5.05 (8.32)	2.29	3.07	480
3	218½	890	1.025	8.69	1,139	6.69 (10.97)	3.51	3.83	597
4	217¼	2,230	1.010	10.46	1,255	7.41 (12.15)	2.98	3.38	667
5	213½	2,250	1.014	10.71	1,218	8.50 (13.95)	5.91	1.64	724
6	203	1,400	1.016	7.45	1,156	6.21 (10.22)	2.16	3.65	705
7	205½	1,230	1.016	8.35	1,171	6.15 (10.09)	3.14	2.67	654
8	201¾	900	1.022	7.59	1,035	5.76 (9.45)	3.56	2.56	578
9	200	950	1.018	7.07	1,105	5.12 (8.43)	3.44	3.53	500
10†	198	1,340	1.015	8.63	1,155	5.05 (8.31)	2.65	3.55	663
11	195¾	1,540	1.015	8.65	1,133	6.74 (11.05)	3.57	2.81	610
12	194	840	1.020	7.17	1,201	4.85 (7.98)	3.14	1.17	332
13	192¾	830	1.020	7.55	1,351	4.29 (7.06)	2.49	1.61	378
14	191	510	1.025	6.61	1,205	3.25 (5.35)	1.16	2.00	297
15	190½	920	1.022	8.11	1,221	4.13 (6.80)	1.96	2.56	468
16	189	185	1.030	7.15	1,358	2.20 (3.61)	1.21	3.81	403
17	188½	110	1.030	7.73	1,558	1.12 (2.23)	0.80	3.52	115
18	187	195	1.028	8.59	1,208	1.68 (2.76)	0.52	2.93	495

* First day of cardiac diet.

† Diet was increased on this and subsequent days.

edly in nitrogen equilibrium or a plus balance was indicated, even when the body weight remained stationary. The creatinine excretion increased with the onset of the diuresis and remained fairly constant thereafter. The results of this determination prior to the onset of the diuresis suggests the advisability of a further study of the creatinine during the development of the edema.

The significance of the sodium ion in edema formation has received clinical recognition only in recent years. Most of the data have been interpreted on the basis of chlorine determinations calculated as sodium chloride. Keith and Whelan[11] have found that sodium and chlorine ions are usually excreted in molecular proportions in the diuresis produced by merbaphen in normal persons and in noncardiac edema cases.

It is to be noted that there was an increase in the excretion of potassium and phosphorus along with sodium chloride during the diuresis. Gamble, Blackfan and Hamilton[12] regard the excess excretion of the sodium and potassium as indicating the source of the fluids eliminated. They believe that the sodium comes from the extracellular fluid and is the first to be moved, while the potassium is of intracellular origin.

The blood uric acid was usually increased in the arteriosclerotic patient, while the creatinine and urea nitrogen were within normal limits. As the clinical condition improved, the uric acid decreased.

SUMMARY

The importance of diet in the treatment of cardiac failure has not been fully appreciated.

The Karell diet, which is usually mentioned in the treatment of advanced cardiac failure, does not provide sufficient energy. The diet here described has been valuable in the treatment of advanced cardiac failure, particularly when extensive edema is present. This diet has an energy value of 2,100 calories, and consists of 44 Gm. of protein, 110 Gm. of fat and 222 Gm. of carbohydrate. The fluid intake is limited to only 1,500 cc., and the salt is reduced to a minimum.

This diet has been employed in the treatment of more than fifty patients, in whom the change in the diet alone effected an elimination of the excess fluids, with an associated improvement in the general condition. The efficiency of the diet is believed to be due to the low salt content, and the easily available energy provided by the carbohydrate, particularly in the forms of sugar.

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[11] Keith, N. M., and Whelan, Mary: Am. J. Physiol. **72**: 195 (March) 1925.

[12] Gamble, J. L.; Blackfan, K. D., and Hamilton, B.: J. Clin. Investigation **1**: 531 (April) 1925.

Renal Tuberculosis.—Tubercle bacilli reach the kidney either by the blood stream or by the lymphatics, and of these two routes the hematogenous is undoubtedly the commoner. The exact site of the initial lesion in the kidney is disputed. The peculiar arrangement of the intrarenal arteries favors a cortical lesion, but clinically, though many tubercles are seen in the cortex, the grossest lesion is nearly always at the base of a papilla. The lymphatics are considered by some to be the means of infection in those cases which are secondary to quiescent pleural and pulmonary tuberculosis. The bacilli are thought to be carried in the lymphatics passing through the diaphragm by a retrograde current set up by pleural adhesions. Though primary lymphatic infection is doubtful, secondary infection may be conveyed from a diseased to a healthy kidney by the communicating channels between the two renal plexuses, or from an ulcerated bladder by the periureteral lymphatics.—Nitch, C. A. R.: Urogenital Tuberculosis, *Brit. M. J.*, May 14, 1927.

ANTISCORBUTIC VITAMIN CONTENT OF MILK OF STALL-FED COWS THROUGHOUT A YEAR

PROBABILITY THAT ENSILAGE IS AN IMPORTANT SOURCE OF THIS VITAMIN *

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NEW YORK

Milk from cows which are stall-fed the year round is being used to some extent at the present time in the feeding of infants. In view of the fact that the milk from pasture-fed animals has been reported by most investigators to be richer in its vitamin content than that from animals without access to pasture, it has seemed of interest to test the milk from a herd of stall-fed cows for an entire year to determine its antiscorbutic potency. The greater antiscorbutic value of the milk of the pasture-fed cow is doubtless due to the antiscorbutic vitamin content of the fresh grasses which the animal receives, since the animal body probably does not synthesize this vitamin and is therefore dependent on its food to provide an adequate amount of it in its milk. Ensilage being the principal source of the antiscorbutic vitamin in the ration of the stall-fed cows, it appeared possible that animals fed an ensilage of good quality might produce a milk of high antiscorbutic value. It was also of interest to determine whether the antiscorbutic value of such milk would fluctuate from season to season or would remain reasonably constant.

Before the results of the present investigation are given, previous experiments dealing with the study of the antiscorbutic value of milk will be reviewed briefly.

REVIEW OF THE LITERATURE

Frölich,[1] in 1912, was the first to show by laboratory experiments that milk contained the antiscorbutic vitamin, vitamin C. He reported that guinea-pigs which were fed oats and raw milk ad libitum were normal after from 116 to 138 days on the diet.

Chick, Hume and Skelton,[2] in 1918, carried out the first work of a quantitative nature on the vitamin C content of milk. They found that guinea-pigs receiving from 30 to 50 cc. of raw cow's milk per animal daily died from scurvy in thirty days. If the amount of milk consumed averaged 50 cc., the lives of the guinea-pigs were prolonged to seventy-five days. When the amount of milk consumed averaged 85 cc. at the beginning and increased up to 130 cc. for the main period, good health was maintained and the weights of the animals were normal throughout the three months of the experiments.

Cohen and Mendel[3] reported, in 1918, that small amounts of raw milk did not prevent the onset of scurvy in guinea-pigs, while larger amounts caused the scorbutic symptoms to disappear.

Barnes and Hume,[4] in 1919, stated that from 100 to 150 cc. of raw milk per animal daily prevented scurvy in guinea-pigs weighing from 300 to 400 Gm. They also found some evidence which indicated that summer milk has a higher antiscorbutic value than winter milk.

Hart, Steenbock and Ellis,[5] in 1920, gave experimental proof of the relationship of the food of the cow

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* From the Department of Chemistry, Columbia University.

* This research was aided through a grant by the Walker-Gordon Laboratory Company.

[1] Frölich, T.: Ztschr. f. Hyg. u. Infectionskrankh. **72**: 155, 1912.

[2] Chick, Harriet; Hume, E. M., and Skelton, R. F.: Biochem. J. **12**: 131, 1918.

[3] Cohen, B., and Mendel, L. B.: J. Biol. Chem. **35**: 425 (Sept.) 1918.

[4] Barnes, R. E., and Hume, E. M.: Biochem. J. **13**: 306, 1919.

[5] Hart, E. B.: Steenbock, H., and Ellis, N. R.: J. Biol. Chem. **42**: 383 (July) 1920.

to the vitamin potency of the milk. They found that one guinea-pig out of three was protected from scurvy on 15 cc. of summer milk daily, and that two out of three on 30 cc. were protected, while on 50 cc. complete protection was obtained in every case. They also examined the milk from cows which had been kept on air-dried roughages and grains with no source of fresh, green vegetable tissue for several years. Seventy-five cc. of this milk daily protected guinea-pigs for eighteen weeks.

In 1919, Hess and Unger[6] stated that 80 cc. of milk was required to protect a guinea-pig from scurvy, and that at least one pint of fresh, raw milk daily was necessary to protect a baby from scurvy. Hess, Unger and Supplee,[7] in 1920, reported the results of experiments on the relation of fodder to the antiscorbutic vitamin content of milk. Five cows were kept on winter feed all winter, and in April were given a ration very low in its vitamin C content. After three weeks on this ration, one day's mixed sample of milk was dried by the roller process. The cows were then placed on pasture for three weeks and one day's mixed sample of the milk was dried. Five guinea-pigs receiving 80 cc. of the dry fodder milk per animal daily, all developed scurvy within twenty-one days and died of scurvy within fifty-six days. Three which were given 80 cc. of the pasture milk were alive after 120 days, and two of these showed mild scurvy.

Dutcher and his associates,[8] in 1920, reported experiments on the influence of the diet of the cow on the antiscorbutic properties of cow's milk. Two cows were placed on a vitamin-poor ration in the middle of January. The mixed milk was fed in varying quantities to several groups of guinea-pigs. June 1, the cows were given a vitamin-rich ration, and the experiment was repeated. Twenty cubic centimeters of summer milk per animal daily was found to be superior in antiscorbutic value to 60 cc. of winter milk. These authors secured evidence which showed a tendency for the milk to become poor slowly when the diet fed was low in vitamins, while the milk became of higher value almost immediately on ingestion of a vitamin-rich ration.

Cavanaugh, Dutcher and Hall,[9] in 1923, in studying the effect of the spray process of drying on the vitamin C content of milk, fed raw milk at levels of 20, 30 and 40 cc. per animal daily to guinea-pigs. The animals were fed for three months, and out of ten animals receiving 40 cc. of milk, four had mild scurvy.

Olson and Copeland,[10] in 1924, reported the results of studies on the influence of the diet of the cow on the antiscorbutic potency of the milk. They concluded that the vitamin C in milk has its origin in the feed of the cow, and that to maintain an adequate supply of this vitamin in the milk, good silage is important.

Hughes, Fitch, Cave and Riddell[11] reported recently, as the result of a long series of experiments, "that the vitamin C content of a cow's ration has little if any influence on the vitamin C content of the milk."

EXPERIMENTAL OBSERVATIONS

As stated before, experiments were performed to determine the antiscorbutic vitamin content of raw milk received from one dairy during an entire year from July, 1925, to July, 1926. The cows from which the milk was obtained received a diet which was believed to be an optimum one, and which was uniform throughout the entire year. Each cow during the year received on an average 9 pounds of the following mixture daily: bran, 400 pounds; hominy, 700 pounds; oilmeal, 300 pounds; gluten, 200 pounds; bone meal, 20 pounds; lime flour, 20 pounds, and salt, 40 pounds. In addition, each animal was given daily 5 pounds of New Jersey alfalfa hay, 4 pounds of ground Colorado alfalfa hay, 30 pounds of corn silage and 4 pounds of soaked dried beet pulp. The animals were outdoors in yards for a few hours in the middle of the day, weather conditions being suitable, but at no time had access to pasture.

The experimental procedure of Sherman, LaMer and Campbell[12] was followed in this work. According to their method, guinea-pigs which are known to be growing normally and which weigh from 300 to 350 Gm. are fed ad libitum a basal diet adequate in all other respects but devoid of vitamin C; and, in addition, the food to be tested in known amounts daily. The animals are continued on the experimental diet for ninety days, and the degree of scurvy determined at autopsy.

The basal diet used was approximately that of Sherman, LaMer and Campbell.[12] Its composition was: rolled oats, 39 per cent; bran, 20 per cent; skimmed milk powder heated, and freely exposed to air for four hours, at 110 C., 30 per cent; butter fat, 10 per cent, and sodium chloride, 1 per cent.

The amount of milk powder and butter fat used in this basal diet was reduced in proportion to the liquid milk fed. The diets were made up in such a way that each animal would receive daily approximately the same amount of milk solids from the sum of the liquid milk fed and the milk powder contained in the basal diet. In calculating the diets, the average intake of dry food was considered as 20 Gm. per animal daily, although it was found that the appetites of the individual animals for the basal diet were very different.

The milk was fed six days a week and was given by medicine dropper, two or three feedings being made during the day. The amounts given were calculated on the basis of a 300 Gm. initial weight. Every animal was weighed three times a week during the entire experiment. The scurvy scoring suggested by Sherman, LaMer and Campbell[12] and by Kenny[13] was used. Each animal on autopsy was given a numerical score which was based on deviations from the normal in the bony system; i. e., in the jaw, teeth, ribs and joints, and on hemorrhages occurring in the ribs, intestines, joints and muscles. According to the degree of scurvy, one plus sign, two plus signs or three plus signs were assigned to each part of the body examined for scurvy. By this method of totaling the plus signs, the maximum score possible is 24. When only a trace of scurvy was observable in any part of the body, a score of 0.5 was assigned.

During the year, three lots of skimmed milk powder were used in the basal diet. Each lot was tested to make sure that it was free from antiscorbutic vitamin. The control animals, which received the basal diet with no source of antiscorbutic vitamin, died of severe scurvy after an average of 22.4 days on the diet, with an average scurvy score of 18. The results found for these animals are given in table 1, and it can be seen that a seasonal difference was not found in their records.

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[6] Hess, A. F., and Unger, L. J.: Factors Affecting the Antiscorbutic Value of Foods, Am. J. Dis. Child. **17**: 221 (April) 1919.

[7] Hess, A. F.; Unger, L. J., and Supplee, A. C.: J. Biol. Chem. **45**: 229 (Dec.) 1920.

[8] Dutcher, R. A.; Eckles, C. H.; Dahle, C. D.; Mead, S. W., and Schaefer, O. G.: J. Biol. Chem. **45**: 119 (Dec.) 1920.

[9] Cavanaugh, G. W.; Dutcher, R. A., and Hall, J. S.: J. Indust. & Engin. Chem. **16**: 1070, 1924.

[10] Olson, T. M., and Copeland, L.: J. Dairy Sc. **7**: 370, 1924.

[11] Hughes, J. S.; Fitch, J. B.; Cave, H. W., and Riddell, W. H.: J. Biol. Chem. **71**: 309 (Jan.) 1927.

[12] Sherman, H. C.; LaMer, V. K., and Campbell, H. L.: J. Am. Chem. Soc. **44**: 165, 1922.

[13] Kenny, C. L.: Dissertation, Columbia University, 1926.

The first series of animals were fed 30 and 50 cc. of milk daily per 300 Gm. initial weight. It was not found possible to feed more than 50 cc. of milk to a 300 Gm. guinea-pig during the day. The first experiments were started in July, 1925, and finished in October, 1925. The two animals receiving 50 cc. of milk daily in the first series were normal during the entire experiment and did not show signs of scurvy on autopsy. The one animal receiving 30 cc. of milk gained in weight steadily until the seventieth day of the experiment, when it began to lose weight rapidly and to show the symptoms of acute scurvy. This animal gave a scurvy score of 11 on autopsy.

TABLE 1.—*Data of Guinea-Pigs Restricted to Basal Diet*

Season	Number of Animals	Average Survival on Diet, Days	Average Scurvy Score at Autopsy	Degree of Scurvy
Summer....................	2	21	16	Very severe
Fall........................	3	23	16.5	Very severe
Winter....................	3	24	18	Very severe
Spring....................	1	19	19	Very severe

During the rest of the year, animals were fed on 30, 40 and 50 cc. levels. Among the animals receiving 30 cc. of milk daily, no deaths from scurvy occurred before the end of the ninety day experimental period. One animal died at eighty-eight days and another at eighty-four days, the first from hemorrhages in the lungs, the second as the result of an impacted cecum. The scurvy scores for the entire year for the animals receiving 30 cc. of milk varied from 4 to 15, with an average score of 9. In most cases, the animals which had high scurvy scores lost weight beginning with the onset of scurvy at the seventieth to the eightieth day.

For animals fed 40 cc. of milk daily, the average score for the year was 3. The scurvy scores for these animals varied from no score to 7. In most cases the scurvy symptoms were scarcely perceptible in the animals receiving 40 cc. of milk daily when they were alive, but were easily seen on autopsy. A large number of the animals in the group receiving 40 cc. of milk had diseased lungs. The lung trouble first occurred among the animals in January, 1926, and from then on was prevalent among the experimental animals used. All the animals took their full allowances of milk every day in spite of the lung trouble.

Fewer animals were fed 50 cc. of milk daily than 30 or 40 cc., because of the difficulty in feeding and the tendency to digestive disturbances among animals receiving the larger amounts of milk. As was stated earlier, the two animals which received 50 cc. of milk daily in the summer and fall of 1925 were healthy and showed no trace of scurvy on autopsy. Unfortunately, all but one of the remaining animals which received 50 cc. of milk daily showed diseased lungs at autopsy. Only one of these had any signs of scurvy. It died at seventy-nine days and had a diseased liver as well as infected lungs.

In table 2, all the animals receiving 30, 40 and 50 cc. of milk daily have been grouped by seasons. By means of the scurvy score of each animal, the percentage of complete protection afforded by the milk fed has been calculated and the number of cubic centimeters necessary for complete protection has been found. An average of the results obtained on thirty-eight animals tested at all seasons of the year gave 49 cc. as the amount of milk per animal daily necessary for complete protection. This average includes eight animals which were fed 50 cc. of milk daily and were fully protected by this amount. The amounts required for the complete protection of these animals were probably under 50 cc.

The average figure for complete protection for the summer of 1925 was 52 cc. For the fall of 1925, the average number of cubic centimeters of milk required for complete protection by the eight animals in the group was found to be 48 cc. For the winter of 1926, the figure for twelve animals was 51 cc., and for the spring the figure for fifteen animals was 46 cc. Significant differences could not be found to exist, therefore, between the amounts of milk (52, 48, 51 and 46 cc.) required by the animals at different times of the year.

The average of 49 cc. found for the year is strikingly lower than the 80 cc. quoted by Hess and Unger[6] and the from 85 to 130 cc. found by Chick, Hume and Skelton[2] to be the amounts necessary for the complete protection of a guinea-pig from scurvy. The high antiscorbutic potency of this milk is undoubtedly due to the good quality of the ensilage fed to the cows, although it has been reported by Ellis, Steenbock and Hart[14] that ensilage and sauerkraut are both of low antiscorbutic value. In this connection it is interesting to note that sauerkraut, which is similar to ensilage, was considered to be of value as an antiscorbutic more than a century ago, for according to Hess[15] it was kept on hand by "the famous navigator Cook, whose voyages were remarkable for the freedom from illness which his sailors enjoyed and the absence of scurvy."

CONCLUSIONS

It can be safely concluded from this investigation that 50 cc. of the milk used in these experiments, fed six days a week, is sufficient to protect a 300 Gm. guinea-pig from scurvy at any time of the year. As a result of this work it can be concluded also that the milk of stall-fed cows which are given a well balanced, uniform diet throughout the year will not show seasonal variation in its antiscorbutic value. By including an ensilage of good quality in the ration, the antiscorbutic potency of the milk may be maintained at a high level.

TABLE 2.—*Milk Required at Different Seasons for Protection from Scurvy (Experimental Period, Ninety days)*

Season	Number of Animals	Amount of Milk Fed, Cc.	Average Scurvy Score at Autopsy	Degree of Scurvy	Milk Necessary for Protection, Calculated, Cc.
Summer..........	1	30	11	Severe	55
	2	50	0	None	50
					Av. = 52 cc.
Fall..............	4	30	8.4	Moderate	48
	4	40	4.1	Mild	49
					Av. = 48 cc.
Winter...........	3	30	9.8	Moderate	54
	5	40	4.0	Mild	48
	4	50	0.9	Slight	52
					Av. = 51 cc.
Spring............	5	30	7.4	Moderate	44
	7	40	2.5	Mild	45
	3	50	0	None	50
					Av. = 46 cc.

Hess estimates that an infant requires five times as much vitamin C as a guinea-pig for protection against scurvy. On the basis of this estimate and these experimental results, it would seem safe to conclude that raw milk from cows fed as described will furnish sufficient antiscorbutic vitamin to protect an infant from scurvy.

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[14] Ellis, N. R.; Steenbock, H., and Hart, E. B.: J. Biol. Chem. **46**: 367 (April) 1921.

[15] Hess, A. F.: Scurvy, Past and Present, Philadelphia, J. B. Lippincott Company, 1920.

THE VITAL CAPACITY OF THE NEGRO CHILD

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AND
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The purpose of this study is to ascertain the vital capacity of a group of normal negro children and compare these vital capacities with those of a group of white children living in the same territory. The negro child forms an integral part of our population and must be considered in any health program. It has been shown that negro children are heavier than white children of the same age and height,[1] and in many other ways the negro physical standard differs from that of the white. For this reason, therefore, it was thought advisable to determine the vital capacity of these children.

In a careful review of the literature but little was found dealing with the vital capacity of negroes. Wilson and Edwards[2] measured thirty-eight normal colored children, and stated that these children had vital capacities definitely lower than white children. Dr. W. G. Smillie of the International Health Board stated[3] that he and Dr. Augustine had measured the vital capacity of negro children in Alabama and found that they had vital capacities definitely lower than white children; the same results were obtained on adults. Foster[4] states that the Chinese have vital capacities lower than westerners. As far as we could learn, these few studies are all that have been made on races other than the white.

MATERIALS AND METHODS

This study is based on observations on 1,564 white children and 1,254 negro children. The children are from rural and urban localities, and form more than 25 per cent of the total school population of the county. This number is therefore an adequate sample of the child population. The children were grouped according to sex. The standing height in centimeters, the weight in pounds, the stem length and the age were ascertained. A Sanborn wet spirometer was used, and the measurements were taken as described in a former paper.[5] Edwards and Wilson[6] have shown that the Sanborn spirometer agrees very closely with their specially constructed instrument.

The average vital capacity, the standard deviation, the coefficient of variation, the probable error of the mean and the probable error of the difference were calculated for each group. The standard deviation was calculated by the formula $SD=\sqrt{\frac{Sd^2}{N}}$, in which SD equals the standard deviation, Sd^2 the sum of the squares of the individual deviations, and N the number of cases. The probable error of the mean was calculated by the formula $PE=0.674494\frac{SD}{\sqrt{N}}$, in which SD is the standard deviation and N the number of cases. The probable error of the difference between the vital capacity of the whites and the negroes was ascertained by the equation $PE_{x-y}=\sqrt{PE^2_x+PE^2_y}$, in which PE_x is the probable error of the mean vital capacity of the white children and PE_y is the probable error of the mean for the negro children.

VITAL CAPACITY AND AGE

The vital capacities are tabulated with reference to age. Chart 1 shows these data in graphic form. In children of 6 years and under the vital capacity readings are not satisfactory, for the reason that it is difficult to secure the cooperation of the child. It has been shown by many workers that age is not a very satisfactory index for vital capacity, but it does bring out some significant facts.

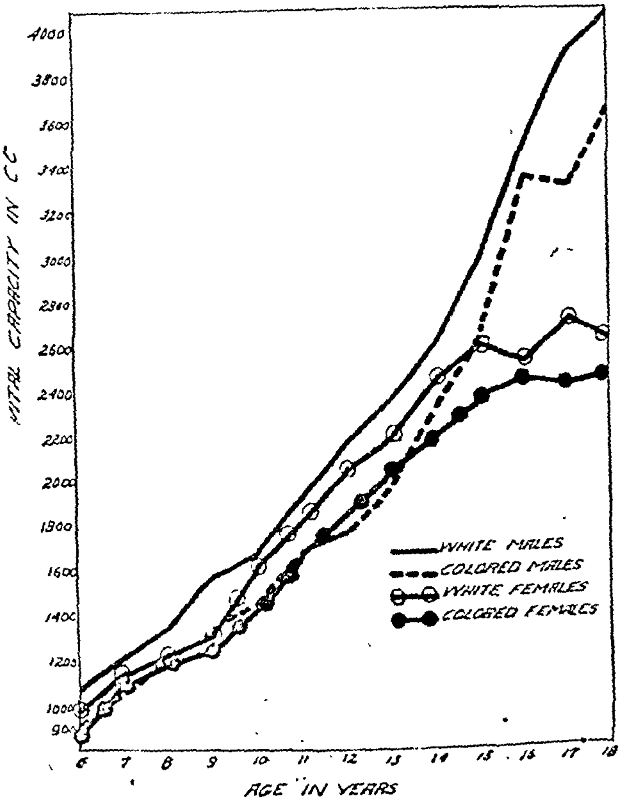

Chart 1.—Relation between age and vital capacity by sex and color.

As will be noticed, the vital capacities of the white boys exceed those of the white girls. This has been demonstrated before. In the case of the colored children this difference is not so marked. The average annual increase in the vital capacity of white boys is 168 cc. up to 13 years of age; from 13 to 18 this increase is 360 cc. The curve shows this acceleration in vital capacity after the thirteenth year. For the colored boys the annual increase is 154 cc. up to 13 years, and 334 cc. thereafter. These increases in the two races agree very closely, and the similarity is shown in the curves.

For the white girls the average annual increase from 6 to 9 years was 137 cc. From 9 to 12 the increase was 236 cc.; from 12 to 15 years, 187 cc., and from

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[1] Mustard, H. S., and Waring, J. I.: Heights and Weights of Colored School Children, Am. J. Pub. Health **16**: 1017 (Oct.) 1926.

[2] Wilson, M. G., and Edwards, D. J.: Diagnostic Value of Determining Vital Capacity of Children, J. A. M. A. **78**: 1107 (April 15) 1922.

[3] Smillie, W. G.: Personal Communication to the authors. Smillie, W. G., and Augustine, D. L.: Vital Capacity of the Negro Race, J. A. M. A. **87**: 2055 (Dec. 18) 1926.

[4] Foster, J. H.: A Study of Vital Capacity of Chinese, China M. J. **38**: 285-294 (April) 1924.

[5] Roberts, F. L.: The Vital Capacity of Children Infected with Hookworm, Am. J. Pub. Health **15**: 774 (Sept.) 1925.

[6] Edwards, D. J., and Wilson, May G.: An Analysis of Some of the Factors of Variability in the Vital Capacity Measurement of Children, Arch. Int. Med. **30**: 638-647 (Nov.) 1922.

15 to 18 years it was not increased. In short, there were four phases: a rather slow increase up to 9 years; from 9 to 12 years an acceleration in the vital capacity; from 12 to 15 years a lessened acceleration, and from 15 years onward a tendency for the curve to straighten out.

For the negro girls the average increase is 120 cc. yearly from 6 to 9 years; 194 cc. from 9 to 12 years; 215 cc. from 12 to 15 years, and from 15 to 18 years the curve flattens. This agrees very closely with the curve for the white girls, except that the greatest acceleration is in the third phase instead of the second.

The coefficient of variation was slightly more in the white children than in the negroes. The average coefficient of variation for the white girls was 19.8 per cent and for the negro girls 17.7 per cent. For the white boys the coefficient of variation was 18.4, and for the negro boys 17.5 per cent.

It is evident that there is a marked difference in the vital capacity of the negro and the white. With the boys this difference is four or more times its probable error in every case except the 16 year group. When a difference is four or more times its probable error, it is almost certainly significant. The white girls exceed the colored girls in every case, but only in the 10, 11, 12, 14, 15 and 17 year age groups is the difference significant. We cannot explain why the difference is less marked in the girls than in the boys; it may be due to chance.

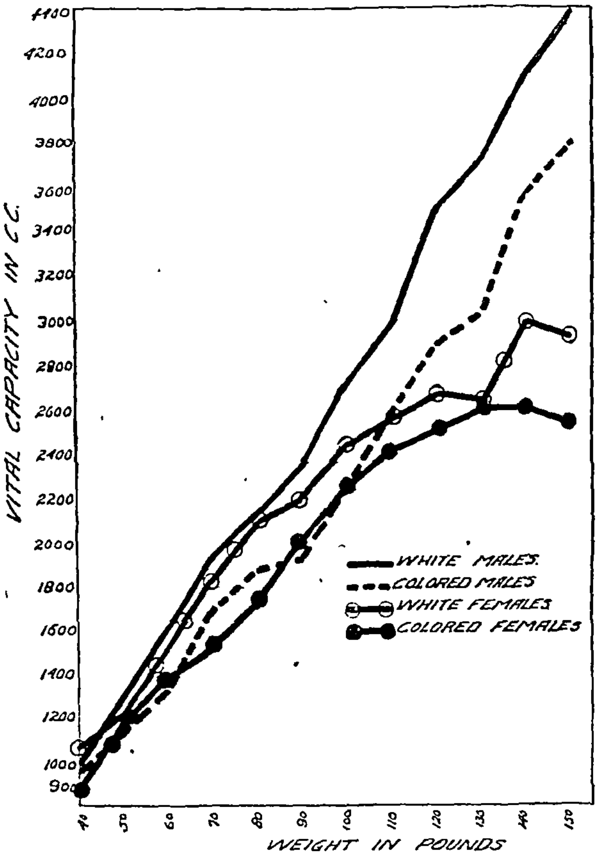

Chart 2.—Relation between body weight and vital capacity by sex and color.

Calculating the difference on a percentage basis reveals that the average difference in the vital capacity of the white girls and the negro girls is 7.2 per cent in favor of the white girls, and that the white boys have capacities averaging 12 per cent more than those of negro boys of the same age.

VITAL CAPACITY AND BODY WEIGHT

Body weight is a much better index for vital capacity than is age. For every 10 pounds (4.5 Kg.) increase in the body weight of white girls examined, there was a corresponding average increase of 171 cc. in vital capacity. The increase seems to be uniform up to 150 pounds (68 Kg.), and thereafter the curve tends to flatten. For each 10 pound increase in body weight of colored girls there is an increase of 156 cc. in vital capacity up to 130 pounds (59 Kg.). After 130 pounds there is practically no increase in vital capacity.

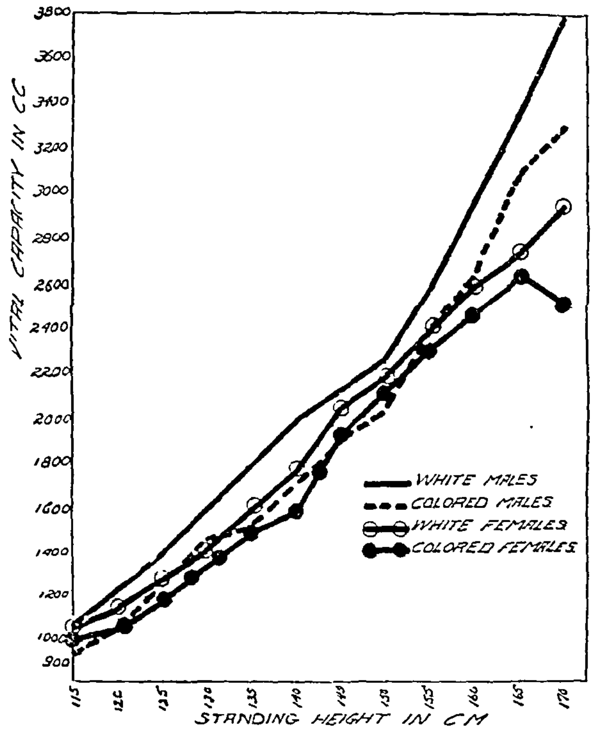

Chart 3.—Relation between standing height and vital capacity by sex and color.

The vital capacity of the colored boys increases 254 cc. with every 10 pound increase in body weight. From 40 to 80 pounds (18 to 36 Kg.), the average increase is 248 cc. From 80 to 130 pounds (36 to 59 Kg.) there is a slight acceleration, the average increase being 255 cc. From 130 to 150 pounds (59 to 68 Kg.) the increase is 294 cc. The white boys show an increase of 309 cc. in vital capacity with each 10 pound increase in body weight. This increase is not uniform, as there are three phases in the curve. From 40 to 80 pounds the average increase is 315 cc. From 80 to 110 pounds (36 to 50 Kg.) the increase is 259 cc., and from this point on there is an acceleration with an average increase in vital capacity of 334 cc.

As shown in chart 2, the white children have greater vital capacity weight for weight than do the negroes. The white boys exceed the colored boys by an average of 14.9 per cent, while the colored girls are 10.2 per cent below the white girls. In the case of the boys, the difference is almost certainly significant in every group except the 40 pound group, and the difference between the white and the negro girls is significant in every case except the 130 pound group.

VITAL CAPACITY AND STANDING HEIGHT

For each 5 cm. increase in standing height the white girls show an average absolute increase of 139 cc. in vital capacity up to 140 cm. After 140 cm. there is a slight acceleration, and the average absolute increase is 194 cc. The colored girls gain 111 cc. in vital capacity for each 5 cm. increase in standing height up to 140 cm., and they gain 170 cc. for each increase thereafter.

In the boys the acceleration is much more marked after 150 cm. In the white boys the average absolute increase in vital capacity is 167 cc. up to 150 cm. in standing height, and 386 cc. thereafter. The negro boys show an average absolute increase in vital capacity of 155 cc. up to 150 cm., and 311 cc. thereafter. The charts show the similarity between the increase of both girls and boys.

The difference in the vital capacity of the two races is shown better in the boys than in the girls. In seven out of ten groups of boys, the difference is almost certainly significant. In only two out of ten cases is the difference significant in the female group. However, the white girls in every case have vital capacities greater than the colored girls. The white boys average 11.2 per cent higher than colored boys with regard to vital capacity, and the white girls exceed the colored girls by 6.8 per cent.

In the standing height group there is practically no difference in the coefficient of variation. The white boys average 14.9 per cent and the colored boys 15.6 per cent, and the white girls and colored girls show a coefficient of variation of 16.3 and 16.5 per cent, respectively.

VITAL CAPACITY AND SITTING HEIGHT

When the vital capacities of negro children are compared with those of white children on the basis of sitting height, we find that there is no significant difference. In only five out of twelve groups do the white girls exceed the negro girls, and not one of the differences is significant. In seven out of twelve groups the negro girls exceed the white girls. In six out of twelve groups the white boys have vital capacities slightly greater than those of the negro boys, and in the other six cases the negro boys exceed the white boys.

For each 2 cm. increase in stem length the white boys gain 171 cc. in vital capacity up to 79 cm.; at this point there is an acceleration, and the increase from 79 cm. to 85 cm. amounts to 253 cc. for each 2 cm. group. The negro boys show an increase of 139 cc. in vital capacity for each 2 cm., an increase in stem length up to 75 cm., and from there on the increase is 296 cc.

The white girls show a fairly uniform average increase of 151 cc. in vital capacity for each 2 cm. increase in stem length. The negro girls show an average increase of 133 cc. in vital capacity up to 73 cm. in stem length. After 73 cm. there seems to be a slight acceleration of the negro girls, as they show an average increase of 152 cc. in vital capacity for each 2 cm. increase in stem length.

The coefficient of variation is practically the same for negro children and white children, the average being 16.5 per cent for the white girls, 16.8 per cent for the negro girls, and 14.4 and 15.8 per cent for the white and negro boys, respectively.

SUMMARY AND CONCLUSIONS

We found in our study of the vital capacities of negro children that they are definitely lower than those of the white children of the same age, body weight, and standing height. The difference is not so marked as in the groups studied by Smillie and Augustine, but is a marked and significant difference. We noted in nearly every group of white children studied by us that the vital capacities were lower than those recorded by Smillie and Augustine. This will probably account for the smaller differences in our group. We did not find a significant difference in the vital capacities of the negro children and white children on the basis of stem length.

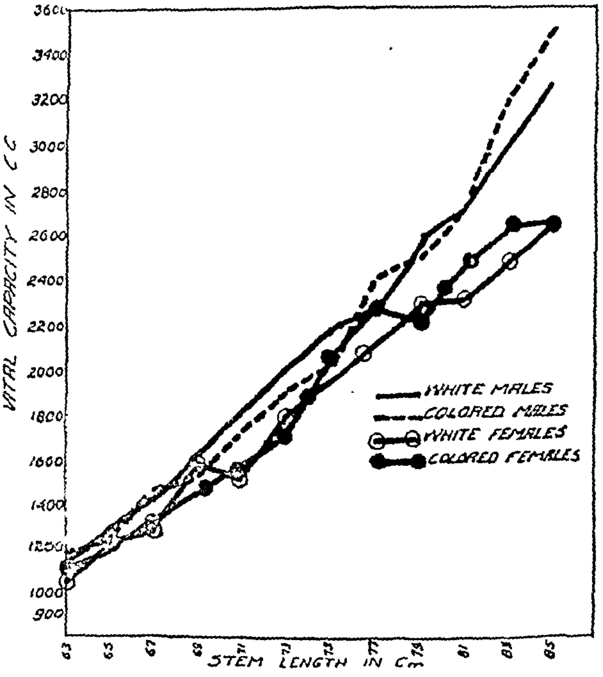

Chart 4.—Relation between stem length and vital capacity by sex and color.

Our conclusions may be summarized thus:

1. The negro children have vital capacities lower than white children of the same age. The difference is greater in the case of the boys. White girls exceed negro girls by 7.2 per cent, and white boys exceed the colored by 12 per cent in vital capacity.
2. Negro children have vital capacities lower than white children of the same body weight. The white girls exceed the colored girls by 10.2 per cent, and the white boys exceed the negro boys by 14.9 per cent in lung capacity.
3. Negro children have vital capacities lower than white children of the same standing height. The white girls show vital capacities averaging 6.8 per cent higher than negro girls, and the white boys have vital capacities that average 11.2 per cent higher than those of negro boys.
4. Negro children have vital capacities practically the same as those of white children of the same stem length.

DISTURBED SURFACE AREA PROPORTIONS IN A CASE OF SUSPECTED OVARIAN HYPERFUNCTION *

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PERTH AMBOY, N. J.

A previous report[1] demonstrated that the surface area proportions of the head, trunk, upper extremities and lower extremities are nearly constant in adults, and that in infants and children the proportions of these parts are different, varying with age until, gradually, adult proportions are assumed. The head, it was demonstrated, decreased from 18 per cent of the total area at birth to 6 per cent in the adult; the lower extremities increased from 25 per cent at birth to 38 per cent in the adult. The trunk and upper extremities varied less progressively. The extremes of variation from the average proportions of seventeen adults of various physical conformation were: head, + 0.8 and — 0.4; upper extremities, + 1 and — 2.9; trunk, + 6 and — 2.3, and lower extremities, + 2 and — 4.2.

The component parts of the upper extremities were: arms, 26 per cent; hands, 73 per cent; lower extremities: thighs, 50 per cent; legs, 32 per cent, and feet, 17 per cent. These varied little in individuals of different physique.

A further study of the proportions in children was made in the Perth Amboy public schools, with the cooperation of Mazie Traimen Berse, then in charge of the mentally defective classes. The children measured were of widely different mental and physical types. Attempts to establish a normal average for each age were not made, the number of children that could be measured being small, and the explicit approval of the school authorities not having been obtained. In this manner, thirty-two children were measured, bringing the total with the children previously measured to fifty-six. The proportions were found to be practically constant for each age, regardless of stature, nutritional state or mental age. We found that, given the age of the child, we could always state the ratio of the head to the total surface within 1 per cent of what actual measurements and calculation would reveal, and the proportions of the other parts could be stated with somewhat less exactitude.

The proportions of the component parts of the upper and lower extremities were found not to vary with age, being essentially the same in the infant and adult. They were found to be particularly constant in all the persons measured.

It is interesting to observe that nutritional disturbances, such as rickets, influenced surface area proportions very slightly.

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The present report concerns a case of suspected ovarian disturbance in a child, aged 8 years, in whom the surface area of the head represents a different proportion of the total body surface from what has been observed in any other child of that age.

REPORT OF CASE

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The child weighed 73½ pounds (33.4 Kg.) and was 51 inches (129.5 cm.) tall. The temperature was 98 F.; the pulse, 104, and the respiration, 22. She was well nourished.

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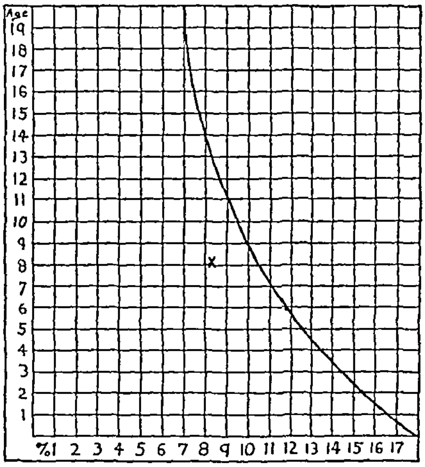

Curve representing proportion between head and total surface area in children. The percentage area of the head of the patient is marked by a cross.

On the basis of these observations, largely negative, a diagnosis of ovarian hyperfunction was made, Dr. Kurzweil of the pediatric department disagreeing. I then measured the child according to the linear method of Delafield and Eugene Du Bois,[2] and the proportions of the head, trunk, upper extremities (arms and hands) and lower extremities (feet, legs and thighs) were computed from these measurements. The measurements were: head, 8.5 per cent; trunk, 38.7 per cent; upper extremities, 16.7 per cent; lower extremities, 35.9 per cent.

COMMENT

These data differ materially from the average for the age group only in the proportion of the head, which is fully 2 per cent less than the ratio between that part and the total surface in other children 8 years old. This is nearly twice the variation encountered heretofore in the most divergent cases in one age group. The difference is in favor of the adult type. The accompanying chart gives the curve of head proportions from

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except the 40 pound group, and the difference between the white and the negro girls is significant in every case except the 130 pound group.

VITAL CAPACITY AND STANDING HEIGHT

For each 5 cm. increase in standing height the white girls show an average absolute increase of 139 cc. in vital capacity up to 140 cm. After 140 cm. there is a slight acceleration, and the average absolute increase is 194 cc. The colored girls gain 111 cc. in vital capacity for each 5 cm. increase in standing height up to 140 cm., and they gain 170 cc. for each increase thereafter.

In the boys the acceleration is much more marked after 150 cm. In the white boys the average absolute increase in vital capacity is 167 cc. up to 150 cm. in standing height, and 386 cc. thereafter. The negro boys show an average absolute increase in vital capacity of 155 cc. up to 150 cm., and 311 cc. thereafter. The charts show the similarity between the increase of both girls and boys.

The difference in the vital capacity of the two races is shown better in the boys than in the girls. In seven out of ten groups of boys, the difference is almost certainly significant. In only two out of ten cases is the difference significant in the female group. However, the white girls in every case have vital capacities greater than the colored girls. The white boys average 11.2 per cent higher than colored boys with regard to vital capacity, and the white girls exceed the colored girls by 6.8 per cent.

In the standing height group there is practically no difference in the coefficient of variation. The white boys average 14.9 per cent and the colored boys 15.6 per cent, and the white girls and colored girls show a coefficient of variation of 16.3 and 16.5 per cent, respectively.

VITAL CAPACITY AND SITTING HEIGHT

When the vital capacities of negro children are compared with those of white children on the basis of sitting height, we find that there is no significant difference. In only five out of twelve groups do the white girls exceed the negro girls, and not one of the differences is significant. In seven out of twelve groups the negro girls exceed the white girls. In six out of twelve groups the white boys have vital capacities slightly greater than those of the negro boys, and in the other six cases the negro boys exceed the white boys.

For each 2 cm. increase in stem length the white boys gain 171 cc. in vital capacity up to 79 cm.; at this point there is an acceleration, and the increase from 79 cm. to 85 cm. amounts to 253 cc. for each 2 cm. group. The negro boys show an increase of 139 cc. in vital capacity for each 2 cm., an increase in stem length up to 75 cm., and from there on the increase is 296 cc.

The white girls show a fairly uniform average increase of 151 cc. in vital capacity for each 2 cm. increase in stem length. The negro girls show an average increase of 133 cc. in vital capacity up to 73 cm. in stem length. After 73 cm. there seems to be a slight acceleration of the negro girls, as they show an average increase of 152 cc. in vital capacity for each 2 cm. increase in stem length.

The coefficient of variation is practically the same for negro children and white children, the average being 16.5 per cent for the white girls, 16.8 per cent for the negro girls, and 14.4 and 15.8 per cent for the white and negro boys, respectively.

SUMMARY AND CONCLUSIONS

We found in our study of the vital capacities of negro children that they are definitely lower than those of the white children of the same age, body weight, and standing height. The difference is not so marked as in the groups studied by Smillie and Augustine, but is a marked and significant difference. We noted in nearly every group of white children studied by us that the vital capacities were lower than those recorded by Smillie and Augustine. This will probably account for the smaller differences in our group. We did not find a significant difference in the vital capacities of the negro children and white children on the basis of stem length.

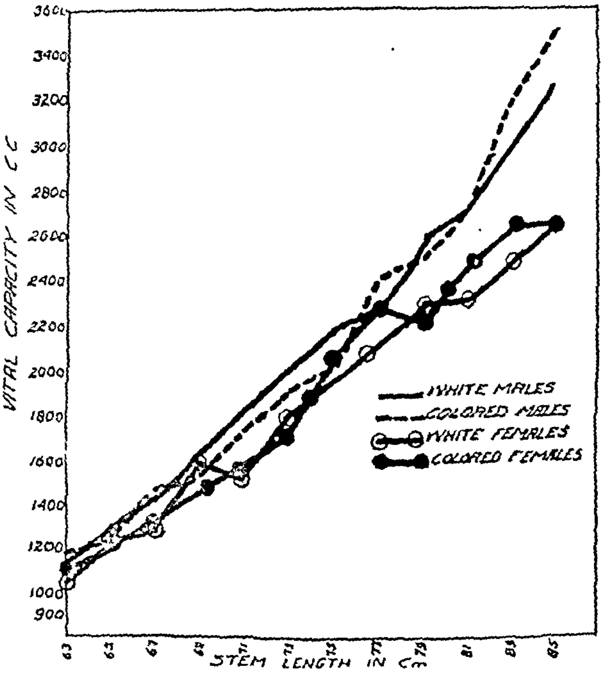

Chart 4.—Relation between stem length and vital capacity by sex and color.

Our conclusions may be summarized thus:

1. The negro children have vital capacities lower than white children of the same age. The difference is greater in the case of the boys. White girls exceed negro girls by 7.2 per cent, and white boys exceed the colored by 12 per cent in vital capacity.
2. Negro children have vital capacities lower than white children of the same body weight. The white girls exceed the colored girls by 10.2 per cent, and the white boys exceed the negro boys by 14.9 per cent in lung capacity.
3. Negro children have vital capacities lower than white children of the same standing height. The white girls show vital capacities averaging 6.8 per cent higher than negro girls, and the white boys have vital capacities that average 11.2 per cent higher than those of negro boys.
4. Negro children have vital capacities practically the same as those of white children of the same stem length.

DISTURBED SURFACE AREA PROPORTIONS IN A CASE OF SUSPECTED OVARIAN HYPERFUNCTION *

SAMUEL GORDON BERKOW, M.D.
PERTH AMBOY, N. J.

A previous report[1] demonstrated that the surface area proportions of the head, trunk, upper extremities and lower extremities are nearly constant in adults, and that in infants and children the proportions of these parts are different, varying with age until, gradually, adult proportions are assumed. The head, it was demonstrated, decreased from 18 per cent of the total area at birth to 6 per cent in the adult; the lower extremities increased from 25 per cent at birth to 38 per cent in the adult. The trunk and upper extremities varied less progressively. The extremes of variation from the average proportions of seventeen adults of various physical conformation were: head, + 0.8 and — 0.4; upper extremities, + 1 and — 2.9; trunk, + 6 and — 2.3, and lower extremities, + 2 and — 4.2.

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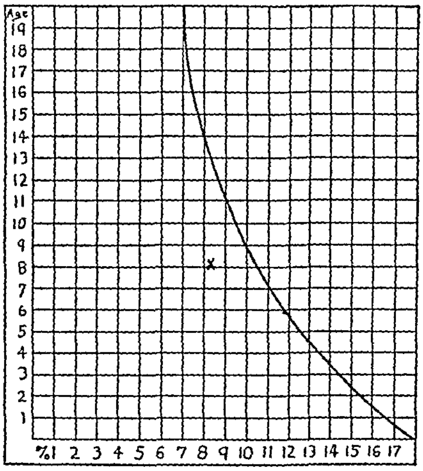

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infancy to 20 years and marks the relative position of the head in this case.

The remaining proportions are within the usual limits. The components of the upper and lower extremities exhibit the usual ratios. The arms are 72.2 per cent; hands, 27.7 per cent of the upper extremities; the thighs are 50.6 per cent; the legs, 30.7 per cent, and the feet 18.6 per cent of the lower extremities.

The assumption of an abnormal disproportion of the head in this child does not warrant the conclusion that this abnormality can be linked with the symptoms complained of. However, it does seem significant that the greatest disparity in proportions has been observed in a case of known endocrine disturbance (the cretin) and in a case of suspected imbalance. It serves to strengthen the hypothesis, supported by the known influence of these glands on growth, that a mathematical index of endocrine imbalance may be derived from a further study of proportions.

TUBERCULOSIS AND GOITER*

E. P. SLOAN, M.D.
BLOOMINGTON, ILL.

All authorities are agreed on the difficulties sometimes encountered in making a differential diagnosis between pulmonary tuberculosis in the incipient or minimal stage (without definite lung signs) and early goiter when not accompanied by appreciable enlargement of the thyroid. All are agreed on the striking similarity in the symptom complex of the two conditions. In both goiter and early tuberculosis there are tachycardia, instability of the pulse, progressive loss of weight, sweating, nervous symptoms and emotional changes. As regards the metabolic rate as a means of differentiation, in some cases of tuberculosis there is a slight increase in metabolic rate almost identical with that so often seen in the forme fruste or mild type of exophthalmic goiter. Consequently, this criterion also fails us in the differentiation of these two conditions.

In both conditions are found sympathetic disturbance and loss of weight despite increased appetite. If to the foregoing syndrome there is added the appearance of a mild or moderate thyroid enlargement, especially in the female during puberty or pregnancy, a diagnostic problem is presented that sometimes will baffle the most acute observer. The symptoms of the two conditions are often similar; indeed, almost identical. One is inclined to think that in many cases they actually are identical: in other words, that both are present. Many are inclined to believe nowadays that the exciting cause of exophthalmic goiter, in the great majority of cases, is infection. If this is so, one can hardly conceive of normal thyroid function in the presence of the long drawn out toxemia of tuberculosis. A toxemic dysfunction of the thyroid will explain many of the symptoms of atypical tuberculosis.

THYROID CHANGES IN PULMONARY TUBERCULOSIS (?) AND THEIR CORRELATION WITH SYMPTOMS

Is there any pathologic basis for a theory of thyroid dysfunction in tuberculosis? Unfortunately, the subject of thyroid disease in tuberculosis has not received the attention its importance demands. Reports of very few thyroidectomies done in the early stages of tuberculosis have been published; consequently very little information as to the pathologic changes in the gland at this time is available. This fact is of great significance, as it is precisely in the early stages of tuberculosis that there are most often marked symptoms of thyroid dysfunction. There is, however, a wealth of autopsy statistics relative to patients dead of tuberculosis, and, according to these statistics, sclerosis of the thyroid is very common in advanced tuberculosis. Now, it is a frequent clinical observation that as the tuberculosis advances the symptoms suggestive of thyroid disturbance show some tendency to improve.

Correlation of these two facts leads to the formulation of an inviting hypothesis as to the changes that actually take place in the thyroid gland. The sclerosis found in the advanced case is, of necessity, a secondary or late stage of inflammation. Antedating the sclerosis one may presuppose toxemic stimulation and inflammatory change, and inflammatory change in thyroid tissue is, in my opinion, always attended with symptoms of thyroid dysfunction.

ACTIVE TUBERCULOUS LESIONS OF THE THYROID

The thyroid apparently does possess some degree of immunity against actual bacillary invasion and the resulting destructive or fibrotic change.

The idea that, in the majority of cases, the sclerosis and antecedent hyperplasia are due to toxemia rather than to bacillary invasion finds definite support in the fact that sclerosis of the thyroid has been found in the new-born children of tuberculous mothers. Even without the aid of statistics, it would perhaps be reasonable to conclude that in a structure as vascular as the thyroid, chronic caseous tuberculosis must of necessity be rare.

Tuberculous lesions, however, do occur. Last December, in Detroit, I was furnished two patients for demonstration in a diagnostic goiter clinic on whom thyroidectomies had been done within the last year. Both patients were in rather advanced stages of pulmonary tuberculosis. Removal revealed tubercles disseminated throughout both glands. Tubercle bacilli were present not only within the tubercles that were visible macroscopically but also in other portions of the gland. Both patients following thyroidectomy were greatly improved and are carrying their active pulmonary tuberculosis with progressive appreciable improvement in their condition.

Tubercles in the thyroid are common in cases of miliary tuberculosis; Weigert examined the thyroid in eleven cases of miliary tuberculosis and found tubercles in every case. Lesions of chronic tuberculosis are also found. Chiari found tuberculous lesions in the thyroid in 7 per cent of a series of autopsies in cases of pulmonary tuberculosis. Fraenkel found lesions in six of fifty cases examined. Depending on their extent and the degree of secondary inflammatory changes in the gland, these lesions may, of course, cause symptoms of goiter.

IODINE CONTENT OF THE THYROID IN TUBERCULOSIS

Unfortunately, sufficient work along this line has not been done. Gautier, however, found the iodine decreased or absent. I have, in addition, an interesting observation to offer. Years ago some of the supposedly early cases of tuberculosis showed a distinct improvement, especially lowered pulse rate, consequent on the use of the crude cod liver oil then obtainable. I believe now that the improvement, which was then attributed to the nutritive qualities of the oil, was in reality often due to the iodine and other mineral salts which it contained, and that a percentage of the cases that improved on this treatment were really cases of atypical exophthalmic goiter rather than tuberculosis. I have not noted the same improvement in similar cases consequent on the administration of the refined cod liver oil of recent years. The reason for this, I think, may be that in the refining process the mineral content, especially the iodine content, of the oil is appreciably lessened.

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* Read before the Chicago Tuberculosis Society, March 10, 1927.

THREE TYPES OF DIAGNOSTIC PROBLEM IN EARLY CASES

In the differential diagnosis of early tuberculosis and exophthalmic goiter, there are three possibilities to be considered:

1. The incipient case of tuberculosis, without demonstrable lung lesion, resembling mild exophthalmic goiter.
2. The forme fruste or mild type of exophthalmic goiter resembling early tuberculosis.
3. Coexistent tuberculosis and goiter.

Rest is fortunately the essential element in the treatment of all these conditions, and it is possible that some cases of forme fruste exophthalmic goiter, after a rest of from three to six months in sanatoriums, are considered "arrested cases" of pulmonary tuberculosis and the patient is discharged. It is possible that some in the third group, patients having both *mild* tuberculosis and mild goiter, are discharged as having arrested tuberculosis; and rightly, too, as the tuberculosis is arrested, though the thyroid is still active or toxic. These patients have a pulse rate higher than is consistent with the temperature curve.

The diagnosis, of course, is most important, and with patience can be made in most cases. Too much reliance is being placed on so-called specific tests and complicated laboratory procedure. The Goetsch test and the tuberculin test point the wrong road perhaps more often than they point the right road. For the differentiation of these confusing syndromes, clinical judgment and experience are much more important than refined laboratory technic. We should bear in mind in considering these and similar conditions the famous dictum of John B. Murphy, "Diagnoses are made with cortical cells rather than with instruments of precision." An early diagnosis may save the patient years of anxiety and invalidism and much needless expense incurred in sanatorium care and perhaps climatic wanderings.

COEXISTENT TUBERCULOSIS AND GOITER

Incidence.—Fishberg of New York says, "It is well known that quite a large proportion of the tuberculous patients present signs of hyperthyroidism, such as more or less bulging eyes, tachycardia, slight tremor, hot flashes, sweating, dermographism and even enlargement of the thyroid gland."

In fifty cases of exophthalmic goiter seen by Saathoff, evidence of mild tuberculosis was found in forty-eight. The two remaining cases were more advanced and showed bacilli in the sputum. Caro examined 486 men of the thyroid diathesis, and found evidence of apical trouble in 210. Schinzinger, in a group of 521 tuberculous patients, discovered signs and symptoms in 191 that suggested very strongly the coexistence of exophthalmic goiter. Many other writers quote a goiter incidence of from 4 to 8 or 10 per cent among their tuberculous patients. These figures show that the coexistence of goiter and pulmonary tuberculosis is not, by any means, a rare condition.

This opinion as to the rather frequent coexistence of the two conditions is not shared by all authorities. In one of the recent books on goiter, the statement is made that the author had never seen a case of coexisting goiter and tuberculosis. A few years ago the superintendent of a large tuberculosis sanatorium in one of the largest cities of the South asserted that he had seen 18,000 cases of tuberculosis and had not in a single instance found evidence of coexisting active or toxic goiter. He asserted positively that tuberculous patients are immune to goiter. I ventured the assertion that in Illinois, where the goiter problem had received considerable attention, no tuberculosis specialist could be found that would make such an assertion, because our tuberculosis specialists look for and find other abnormal conditions when they are present besides tuberculosis.

Reaction of One Disease on the Other.—Some authorities believe that "hyperthyroidism" exercises a beneficent influence on tuberculosis. This hypothesis hardly seems logical. In a disease in which metabolism is already upset, it is difficult to see how goiter, with its marked influence on the metabolic rate, can possibly have a beneficent influence. In tuberculosis, a disease characterized by prolonged toxemia, it hardly seems logical to suppose that goiter, another disease characterized by prolonged toxemia, should have a beneficent influence. The symptoms of each disease seem, as it were, to pull in the same general direction. It is difficult to understand how the sum of the symptoms of both diseases can pull in an opposite direction. If a man is struggling under a load, one does not make his way easier by placing another load on his back.

The erroneous conception concerning the favorable influence of goiter on tuberculosis could not have arisen if the pathologic sequence of the changes in the thyroid gland had been kept in mind. Quite early in tuberculosis there is evidence of toxemia. The toxemia of tuberculosis exercises a noxious influence on the thyroid tissue; after some time there is evidence of thyroid dysfunction. The summation of the symptoms of both diseases causes, I am inclined to think, the extremely toxic symptom complex that sometimes is seen in certain early cases of pulmonary tuberculosis in which the condition in the chest is insufficient to account for the severe illness of the patient. Finally, as a result of prolonged and continuous toxemia, degeneration or sclerosis of the thyroid tissue with obvious enlargement of the gland takes place, and with this degeneration a consequent reduction or disappearance of the thyroid symptoms occurs.

With the disappearance or decrease of symptoms of thyrotoxicosis, the general condition of the patient seems to undergo a relative improvement. This relative improvement, which often occurs at about the time that increase in the size of the gland is observed, is probably the basis for the belief that goiter exercises a favorable influence on tuberculosis.

It should not be forgotten, however, that a noxious thyroid secretion, allowed to operate for long periods during the early stages of the disease, has probably done irreparable harm that could have been profitably and efficiently prevented by early proper thyroid treatment.

Sanatorium Treatment.—Probably some cases of exophthalmic goiter subside or are greatly improved as the result of a rest period of three or six months in a sanatorium. The cases of coexisting exophthalmic goiter and tuberculosis are also greatly benefited. As the tuberculosis becomes arrested, the toxemic irritant to the thyroid is removed. The patient experiences simultaneous improvement in the two diseases.

Medical Treatment.—The medical treatment will follow along the general lines of treatment for tuberculosis, summarized as rest and hygiene.

As regards the use of iodine, even as a preoperative measure, more care is necessary than in the ordinary case of exophthalmic goiter. In the active case of tuberculosis, the exhibition of iodine is said by authorities on tuberculosis to be liable to upset the digestive apparatus and even to provoke a hemorrhage, and this fact must be borne in mind.

Surgical Treatment.—Indications: Considerable prejudice exists in some quarters against operative procedures of consequence in the presence of pulmonary tuberculosis. One of the greatest of pioneer surgeons said in his Golden Rules of Surgery, "Pulmonary tuberculosis is always a contraindication for any serious operation." Undoubtedly this is justifiable to some extent. A prolonged operation, particularly under general anesthesia, exercises a deleterious influence on the condition of the actively tuberculous patient. An ether anesthetic should not under any circumstances be given in the "open case" of tuberculosis, except in the face of an emergency. However, thyroidectomy today has become so simplified that in an emergency it may be applied without detriment even in the actively tuberculous case for relief from severe thyrotoxicosis. Local or gas anesthesia may be used in practically all cases. The preparation and psychic control of the patient may demand a little more time and patience, but the end-results achieved justify the effort.

As regards the direct indication for operative treatment, it is largely a question of individual judgment and experience. The early stage of tuberculous involvement, when the thyroid dysfunction is also in all probability quite recent, is of course the ideal time for operation. But the difficulty of making a positive diagnosis of goiter that demands operation is so great at this stage that such operations are rare indeed. It would take a brave surgeon to undertake operation in such cases before the result of sanatorium treatment has been determined. So the diagnosis and the treatment of the early cases will necessarily remain in the field of the tuberculosis specialist.

Cases That Are Surgical.—First, the chronic tuberculous patient whose condition has been repeatedly classified as arrested and who now has a toxic goiter. The goiter may be either the exophthalmic or the toxic adenoma type. A pulse rate higher than is consistent with the temperature curve is the one symptom that is present in almost every case. Other symptoms are, of course, present according to the kind of goiter and its stage of development. Surgical treatment is very satisfactory in this class of cases.

Second, the tuberculous patient who has improved under sanatorium care and shows arrest of the symptoms of tuberculosis but who still has an active goiter. Symptoms of mild exophthalmic goiter with the cardiac symptoms predominating are usually present. Thyroidectomy completes the cure.

Third, the patient with advanced pulmonary tuberculosis who has a goiter of long standing when a rapid increase in the severity of the symptoms due to the coexistence of tuberculosis toxemia and thyrotoxicosis develops rather suddenly. Removal of the goiter is usually followed by spectacular improvement. The inevitable death of the patient from tuberculosis is probably merely postponed. But the immediate results are so satisfactory that the operation is justified. Usually, it may be said, if the patient has resistance to carry the load of both diseases she should improve remarkably when the thyroid toxemia is removed.

Contraindications.—In a general way, if the nature and extent of the tuberculous lesion is such that hope of arrest or recovery is out of the question, even if the load of thyrotoxicosis is removed, operation is contraindicated.

REPORT OF CASES

In the last fifteen years I have operated on more than 400 patients who were known to be tuberculous before operation, and practically all have gained in weight and made satisfactory improvement. A few of these may be reported briefly:

Case 1.—Margaret O., aged 19 years, operated on in May, 1915, had been under treatment for five years for tuberculosis. Several laboratory examinations were positive. She had some rise of temperature afternoons, especially during and after the menstrual periods. She ate ravenously but weighed only 94 pounds (42.6 Kg.). The pulse rate was from 150 to 170. The goiter was removed under local anesthesia. In one week the pulse rate dropped to below 100, and October 3 of the same year her weight was 134 pounds (61 Kg.). She is living today, and seems to have recovered from the tuberculosis.

Case 2.—Mrs. C. J. had a positive diagnosis of pulmonary tuberculosis made at various times during 1912, and again in 1914 and 1915. She developed marked symptoms of exophthalmic goiter in 1916. Operation with local anesthesia was done in August, 1916. The pulse rate dropped from 140 to 84. Her nervousness and insomnia disappeared. She gained 32 pounds (14.5 Kg.) in four months, and seems well at the present time, ten years after her thyroidectomy.

Case 3.—Miss B. G., aged 23, a student at the University of Illinois, had been tuberculous for years. Tubercle bacilli were found in the sputum at various times. She developed symptoms of exophthalmic goiter during the winter, and a hyperplastic goiter was removed, April 2, 1917. She returned to school in eight days. Her pulse dropped from 150 to 88. Nervousness, insomnia and the afternoon rise of temperature disappeared. She finished her college course, and now, nine years after the operation, is married and is the mother of a 4 year old child and seems to be in perfect health.

SUMMARY

The rather frequent coexistence of goiter and tuberculosis is not sufficiently appreciated.

Diagnostic difficulties are great, owing to the similarity of the clinical picture in the two diseases.

The sequence of pathologic change in the thyroid explains the relative severity of the two diseases at different periods.

Three Types of Diagnostic Problem in Early Cases.—1. The incipient case of tuberculosis, without demonstrable lung lesion, resembling exophthalmic goiter.

2. The forme fruste type of exophthalmic goiter resembling early tuberculosis.

3. Coexistence of tuberculosis and goiter; coexistence of the two diseases, which is comparatively frequent, as shown by statistics.

Three Types of Cases That Are Sometimes Surgical.—1. Chronic tuberculosis with toxic goiter.

2. Arrested tuberculosis with toxic goiter.

3. Acute cumulative toxemia resultant from coexisting pulmonary tuberculosis and toxic goiter.

Treatment.—Early cases: medical; rest and hygiene as for tuberculosis. Late cases: surgical when positive symptoms of thyrotoxicosis are unquestionably present.

THE OCCURRENCE OF STAPHYLOCOCCUS AUREUS INFECTION WITH A SCARLATINIFORM RASH [*]

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Considerable advance has been made in the last few years in the diagnosis of scarlet fever. While the typical case has seldom confused the experienced clinician, the diagnosis of many borderline cases has been difficult. These atypical exanthems have fallen into two groups. The first group comprises cases resembling scarlatina in many respects yet with sufficient deviation from the usual signs and symptoms to render the diagnosis questionable. Filatow [1] and Dukes [2] have described epidemics of such peculiar exanthems. Sporadic instances of infection also occur. The second group includes the exanthems associated with surgical infections. Malfatti [3] described puerperal scarlatina in 1801, and Paget [4] noted in 1864 that scarlet fever might accompany the infection of wounds. Since the etiology of scarlet fever has been established, we know that puerperal and surgical scarlatina occur; but clinical diagnosis is difficult unless the infection follows intimate contact with known cases of scarlatina. After studying the situation carefully, Litten [5] believed that in most instances accurate diagnosis was impossible.

Since Dochez [6] described the preparation of an antitoxic serum with cultures of the streptococcus isolated from scarlet fever, and the Dicks [7] published their account of the toxin occurring in filtrates of similar hemolytic streptococci, accurate methods of diagnosis have been available. Some of these methods are more practical than others. The least time consuming is a modification of the Schultz-Charlton test with convalescent scarlatinal serum. When either convalescent serum or scarlatinal antitoxin is injected intracutaneously in an area covered with a florid rash, blanching occurs in approximately twenty-four hours. This test is apparently quite specific. It occurs only in scarlatinal rashes. Those which are known to be due to other causes do not blanch. The second procedure is time consuming and requires technical skill. Cultures of the throat or wound are examined for the presence of hemolytic streptococcus. If this streptococcus is not found in three or four cultures made when the rash first appears, scarlet fever is excluded. If the streptococcus is found, a presumptive diagnosis is possible if the clinical picture closely resembles scarlatina. In questionable cases several colonies are transferred to broth, and after four days filtrates of these cultures are studied for the presence of scarlatinal toxin. Other methods are available, but they are either too technical or have not been sufficiently substantiated to be employed as routine procedures.

We have observed a number of exanthems in which there was considerable doubt as to the diagnosis. The methods just enumerated were applied in these instances to reach an accurate conclusion as to the etiology. A great majority were proved to be scarlatina. Instances have occurred in which one or the other of the methods failed—the rash did not blanch or the scarlatinal streptococcus was not recovered. In the majority, however, the results of one or both of the procedures were positive. In rare cases neither the culture nor the skin test gave evidence of scarlatinal infection. In three such cases we have isolated *Staphylococcus aureus*. In these instances the bacteriologic and immunologic data show that the entire picture was the result of infection with staphylococcus.

CLINICAL AND BACTERIOLOGIC DATA

The three cases of *Staphylococcus aureus* infection were first studied to eliminate the possibility of infection with the hemolytic streptococcus. Secondly, the staphylococcus isolated in each case was studied to show that it was responsible for the rash. With a few modifications, the methods employed in the study of the streptococcus were applied to the investigation of the staphylococcus. Blanching tests were done in the same manner with staphylococcus antitoxic serum as they have been done in the past with scarlatinal antitoxin. The details of the methods employed in demonstrating scarlatinal toxin in streptococcus filtrates need not be given. They have frequently been fully described in the recent literature. To obtain the toxin with *Staphylococcus aureus*, the strains were grown in 4 per cent peptone broth for four days in an atmosphere of carbon dioxide. Filtrates from these cultures were injected into the skin of rabbits, and the sites of the inoculations were carefully observed for inflammation and necrosis. Neutralization experiments were then done to prove the specificity of this cutaneous reaction. Filtrate and staphylococcus antitoxic serum were mixed, incubated and injected intracutaneously. Controls were prepared with filtrate and antiscarlatinal serum. Three antiscarlatinal serums were tested before one was found that did not contain appreciable amounts of staphylococcus antitoxin. This was a highly potent scarlatinal antitoxin and was employed in these control reactions. The results of the bacteriologic studies have been included with the clinical data in the following case histories:

REPORT OF CASES

CASE 1.—A girl, aged 12 years, had several hordeola in succession. Six weeks later a sudden sharp pain in the thigh was accompanied by a chill and fever. She was nauseated. Her temperature was 102.5 F. The following day a scarlatiniform rash appeared on the chest and face. The thigh was not painful but was tender on pressure. The rash slowly extended to the extremities and abdomen. The progression of the rash was typical of scarlet fever but not as rapid. It was never well marked over the extremities. There was slight circumoral pallor, and the margins of the tongue were red. She did not admit angina, but the throat appeared slightly inflamed. After three or four days the rash faded, disappearing from the face and body first. Moderate fine desquamation was observed ten days later. The thigh continued to be tender and required surgery. A collection of pus was found, which yielded a pure culture of *Staphylococcus aureus*.

Cultures were obtained from the throat of the patient on the second and third days of illness, but hemolytic streptococcus was not found. On the second day 0.5 cc. of scarlatinal antitoxin was injected into the skin of the abdomen, but the rash did not blanch at the site of inoculation. Filtrates obtained from a culture of the staphylococcus isolated from the pus gave necrosis when injected into the skin of a rabbit. This cutaneous reaction was prevented when staphylococcus antitoxic serum was mixed with the filtrate. Scarlatinal antitoxin did not prevent the necrosis

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2. Dukes, C.: On the Confusion of Two Different Diseases under the Name Rubella, Lancet **2**: 89, 1900; On the Features Which Distinguished Epidemic Roseola from Measles and from Scarlet Fever, ibid. **1**: 791, 1894.

3. Malfatti, quoted from Nothnagel, American edition, Philadelphia, W. B. Saunders Company, **2**: 393.

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6. Dochez, A. R.: Studies Concerning the Significance of Streptococcus Hemolyticus in Scarlet Fever, Proc. Soc. Exper. Biol. & Med. **21**: 184 (Jan. 16) 1924.

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Case 2—A child, aged 8, complained of angina one forenoon. When seen, two days later, the temperature was 104 F. The fauces were then intensely swollen and the submaxillary chains of lymphatic glands were enlarged and tender. The face and body were covered with a fine punctate erythema, which was most marked over the chest and in the axillae. The cultures of the throat at this time showed numerous colonies of *Staphylococcus aureus* but none of hemolytic streptococcus Intracutaneous injections were made with both staphylococcus and scarlatinal serums No blanching occurred at the site of the inoculation with the scarlatinal antitoxin. The staphylococcus serum gave partial blanching over an area 6 cm in diameter. The blanching was *not as intense as that* usually occurring in scarlatinous rashes after intracutaneous injection of scarlatinal antitoxin The exanthem had completely faded on the sixth day of illness. Pus containing *Staphylococcus aureus* was obtained from an incision into the left peritonsillar area on the tenth day. Moderate desquamation began twelve days after the onset.

Cultures of the staphylococcus from the pus were made in proteose peptone broth The filtrates produced necrosis in the skin of rabbits This necrosis was prevented by staphylococcus but not by streptococcus serum

Case 3—The history of this case is so similar to the one preceding that the clinical details are not given. The throat cultures showed numerous *Staphylococcus aureus* colonies and a few of hemolytic streptococcus This streptococcus did not produce toxin The rash was partially blanched by an injection of *Staphylococcus aureus* serum, but no such effect was observed with scarlatinal antitoxin. In this case a peritonsillar abscess apparently opened spontaneously. The staphylococcus obtained from the throat culture produced a toxic substance with necrotizing properties similar to those of the strains from the other cases We were unable to obtain blood from these cases for observations on the antitoxic content of the serum.

COMMENT

The essential facts concerning the mechanism of the toxemia and the rash in scarlet fever are now fairly well understood. The exanthem is apparently caused by the toxin of *Streptococcus scarlatinae* in the blood. When antitoxin appears in the circulation in sufficient quantities, the toxin is neutralized[8] The rash then fades and the growth of the organism in the throat is inhibited. The blanching phenomenon is merely the expression of a local passive antitoxic immunity. Many adults who have not had scarlet fever have sufficient circulating antitoxin to give a negative Dick test and to prevent the occurrence of a rash in event of infection with streptococci that produce scarlatinous toxin.[9] In some of these individuals there is apparently sufficient antitoxin to prevent initial infection with these bacteria; in others, pyogenic infections may occur but there is no exanthem.

The literature is replete with references to the toxic properties of filtrates of cultures of *Staphylococcus aureus*. Many of these references are as significant as certain of the older contributions on the relationship of the hemolytic streptococcus to scarlet fever. Von Lingelsheim[10] observed necrosis in the skin of rabbits after the intracutaneous injection of filtrates of the staphylococcus. Later Neisser and Wechsberg[11] repeated these experiments. They found that the toxic property of the filtrates was destroyed at 56 C. and that rabbits could be immunized both actively and passively. The immunized rabbits no longer reacted to intracutaneous inoculations with the active filtrates. Parker,[12] who prepared the antitoxic serum employed in these experiments, has found that neutralization tests may be carried out in animals with filtrates and serums similar to the neutralization of scarlatinal toxin in the human skin. Several types of reactions occur when these filtrates are injected intradermally in man. Coenen[13] has described a reaction similar to that obtained with tuberculin. In addition he describes a generalized erythema with headache, fever and vomiting, occurring in children after single injections of filtrate. These reactions in children are most noteworthy since they resemble the reactions with Gabritchevski's[14] vaccine and reactions more recently obtained with filtrates of *Streptococcus scarlatinae* employed for immunization.

A comparison of the scarlatinal streptococcus and *Staphylococcus aureus* shows numerous similar properties. The production of a toxin with a reasonable degree of cutaneous specificity is common to the two. The staphylococcus toxin is perhaps the less specific of the two. So far it has not been clearly differentiated from the leukocidin. Both bacteria may produce rashes during an infection, and these rashes may be blanched by specific antitoxic serums. Rashes, malaise and fever result from the injection of filtrates of either bacterium in children. Apparently the clinical pictures in certain types of infection with these cocci are almost identical.

One objection may be raised: Rashes are infrequent with staphylococcus infection, yet no other pyogenic bacterium is as widely distributed. This situation is not beyond explanation. *Streptococcus scarlatinae* may produce pyogenic infections without rash if the blood of the infected person contains antitoxin. We have examined the serum of eight normal persons and have found that all were capable of neutralizing the cutaneous reaction with toxic staphylococcus filtrates. The situation is probably comparable to that existing in scarlatinal infection, but the occurrence of staphylococcus antitoxin is apparently more universal than the occurrence of scarlatinal antitoxin in the blood of normal persons.

CONCLUSIONS

1. An exanthem may accompany *Staphylococcus aureus* infection. This exanthem is distinguished with difficulty from the rash occurring during infections with *Streptococcus scarlatinae*.

2. These cases may be distinguished by the absence of scarlatinal streptococcus, the presence of the staphylococcus, and positive blanching phenomena with staphylococcus antitoxic serum.

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[10] Von Lingelsheim, W.: Etiologie und Therapie der Staphylokokken, Beitr. z exper. Therap **1**: 49, 1899.

[11] Neisser, M, in Kolle und Wassermann: Handbuch der pathogenen Mikroorganismen, ed 2, Jena **4**: 375, 1912

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PSEUDO-EPITHELIOMATOUS HYPERPLASIA AT THE MARGINS OF CUTANEOUS ULCERS

WITH ESPECIAL REFERENCE TO HISTOLOGIC DIAGNOSIS *

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That the histologic picture at the margins of chronic or subacute cutaneous ulcers often simulates or actually reproduces that of carcinoma cutis is common knowledge to the pathologist. This would especially apply to the more highly differentiated type of epithelioma, approximately grade 1 of Broders.[1] It is well known that there are many irritative factors which may lead to mimicry of malignant hyperplasia of the epidermis, such as cutaneous blastomycosis, bilharziasis of the rectum, Paget's eczematoid dermatitis, and around pellagrous dermatitis.[2] In all these, the histologic picture may at times be quite good for a malignant growth, but we learned long ago that a malignant condition microscopically was not necessarily a malignant condition clinically; i.e. not a matter of life and death to the patient. In some classes of cases it has thus developed that we have had to require in addition some of such clinical changes as recurrence, tissue permeation and destruction, metastases, anemia and cachexia before pronouncing them malignant.

However, it still remains that some of the hyperplasias in connection with the foregoing conditions finally amount to cancerous ones, and since the problem, *the diagnosis of cancer, is vastly more important* in its beginnings than in the advanced stages, it is incumbent on physicians in practice to anticipate the tragic late expressions just indicated and address themselves willy-nilly to the more uncertain histologic ones which they see in the earliest stages. Heretofore, as far as we can find, this problem in histologic diagnosis has been stated only as a generality. In this communication it will be analyzed more closely in detail, and an *attempt will be made to establish quantitative standards* for, or at least leads to, the establishment of a personal equation as to what level and other qualities of hyperplasia may be expected in subneoplastic epidermal hyperplasia.

This is an exacting, perhaps ambitious, program which can never, from the nature of vital processes, accomplish all its aims, and cannot pretend to supplant a ripe histologic experience. The acid test, that is, the clinical outcome, has been applied to each case in this series and is paramount to the situation.

This issue challenges interest from both pathologist and the clinician if for no other reason than that it involves treatment and prognosis vitally important to the patient; certainly, it falls especially in the province of the dermatologist to make the attempt to interpret the histology of skin ulcers as closely and severely as possible. To facilitate this, and to acquaint ourselves with appearances that may occur in this connection, it is proposed here to record not only the verbal descriptions but also pictorial representations of several steps of epidermal hyperplasia from obviously simple ones to equally obviously neoplastic ones.

The need for immediate attention to this situation was forced on us by sections from an ulcer on the leg of a boy, aged 15. He presented three traumatic ulcerations about 2 cm. in diameter on the left shin; they had refused to heal for three months, and factitial elements could not be detected which might have prevented normal epithelization. The histologic picture was regarded by us as that of prickle-cell cancer (fig. 4). Following wide surgical excision of the ulcers, the further histologic examination failed to confirm the biopsy diagnosis; clear-cut cancer could not be found in numerous sections from three large portions of material. From other cases which have come under observation and in which the ulcerations have healed or are healing under local symptomatic treatment, two have been selected in addition to illustrate the situation; *since the histologic picture in all was more or less* suggestive of malignant epithelial hyperplasia, they are used herewith as the basis for this paper. It must be understood that the considerations in this paper throughout apply only to the earliest stages of malignant conditions in borderline cases, not to those which have proceeded to disorganization of the corium and infiltration of subcutaneous parts.

HISTOLOGIC DIAGNOSIS

There are several well established criteria and principles which determine or at least help to differentiate histologically between neoplastic and non-neoplastic epidermal hyperplasia. Most important is the embryonic or vegetative character of the cell as seen in the hyperplastic parts—best in the deeper regions. Of course, this presupposes knowledge of the normal or adult type of cell, which may generally be acquired by comparisons with cells in more normal parts of the section. The embryonic character is manifested in several days. It is stated in the textbooks that the nucleus is large, hyperchromatic, and well chromatinized. (Hematoxylin and eosin stained sections are regarded as standard in this paper.) The cytoplasm has a rounded-off contour; its substance is more hyaloid than normal, and is perhaps more basic in tint or at least different in tint from the more normal cells elsewhere. There is an absence of vacuoles and edema and other evidences of normal metabolism such as may be exhibited in the more normal parts of the section. Levine[3] states that the type of cell that appears in human cancer is distinguished from other cells on the basis of size and normal cycle of karyokinetic division, the type of division being of the most aberrant character in cancer; this is true in advanced cases, but it is not certain that these extreme types are seen in the early stage with which this paper deals.

Another characteristic of the malignant acanthosis is, of course, deep permeation of the corium. But how deep? This cannot be answered categorically, but there are limitations to non-neoplasatic permeations. Thus, in some inflammatory dermatoses, such as eczema, in which the interpapillary pegs may be highly hyperplastic, they may readily attain the level of the sweat glands, but we have never seen them reach more deeply than this. The presence of epidermal infiltrations between this level should strongly incline one toward the diagnosis of cancer.

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† In partial fulfilment of the requirements for the degree of Master of Medical Science, for graduate work in dermatology and syphilology, in the Graduate School of Medicine of the University of Pennsylvania.

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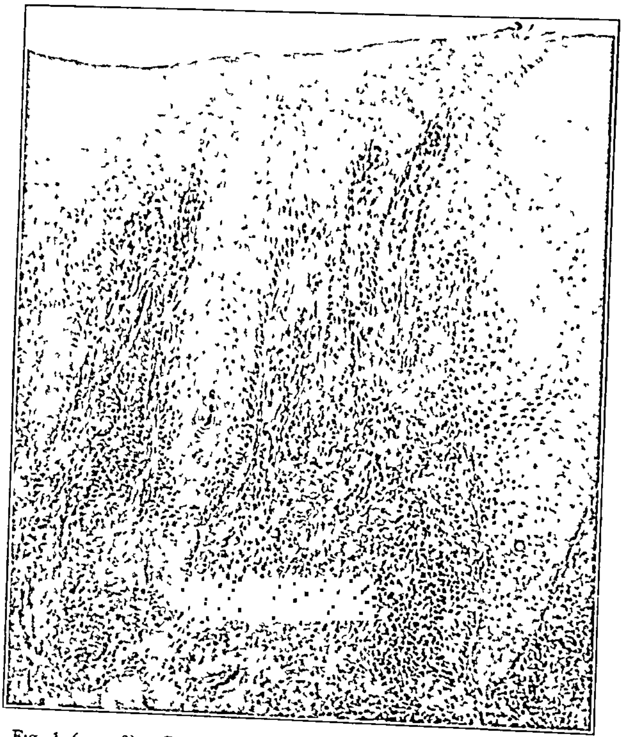

Fig 1 (case 2) —Grade 1 hyperplasia, such as may be seen in many chronic cases of dermatitis This section came from the margin of the ulcer, the other margin of the same ulcer is seen in figure 4 The extreme irregularity in form of pegs, such as is seen in grades 2 and 3, is lacking.

Other associated adjuvant (but only adjuvant) histologic features of diagnostic importance are the intactness of the basement membrane and the formation of pearls. The basement membrane is a more or less definite line, histologically speaking, separating the basal layer of the epidermis from the underlying connective tissue stroma. Actually, it is more an intangible biologic barrier plane than an anatomic structure. Among the causes of vagueness of this plane are infiltration of various cells, edema, and the occurrence of regeneration, all of which may occur in eczema and other dermatoses, and particularly as seen immediately at the margins of benign ulcers. Mitotic figures per se are of little diagnostic value, for they are seen very frequently in simple inflammations and regenerations. They are useful only as adjuncts to other features previously mentioned. Pearls, likewise, are of value only when seen in conjunction with the first three features; thus, verrucae and verrucous nevi often contain pearls. In short, there is no magical open sesame to the diagnosis of epidermal cancer. The histologic diagnosis of cancer has to be arrived at through combination of the foregoing features. Deep permeation need not necessarily be an accompaniment, particularly in very early cancer. However, when there is basement membrane penetration in the genuine cancer sense the cells at that position are always embryonic. Ewing[4] puts it that no single microscopic feature and no combinations of occasional criteria can be claimed as invariably pathognomonic of the cancer process.

To recapitulate, the most valuable single factor in the histologic diagnosis of early skin cancer is also the most subtle one and the one requiring adequate histologic experience; i. e., the assuming of younger, more vegetative qualities on the part of the hyperplastic cells involved. Deep penetration, but only if sufficiently deep (such as infiltration between sweat coils), is a most valuable criterion. After this, mitoses, pearls and irregular interpapillary pegs take second rank.

GRADES OF PSEUDO-EPITHELIOMATOUS HYPERPLASIA

These grades of pseudo-epitheliomatous hyperplasia are artificial groups set up for convenience in discussion and in appraising the biologic activity of the parts. They will be best understood if the illustrations are referred to.

Grade 1. As a matter of fact, this grade scarcely merits the designation "pseudo-epitheliomatous" because there is no difficulty in excluding it from epithelioma; it is included in these considerations, however, in order to round out the series and supply a starting point for the hyperplastic changes. The picture is that of the well known acanthosis, such as is seen in eczema of high grade (fig. 1). The pegs may reach almost to the sweat glands; the observer must be careful not to misinterpret the significance of certain islands of cells in the corium which are really tangential or transverse sections of projections from the pegs. The experienced eye will find that the embryonal qualities of cells which are seen in valid epithelioma are missing in this grade, and that there is not the slightest

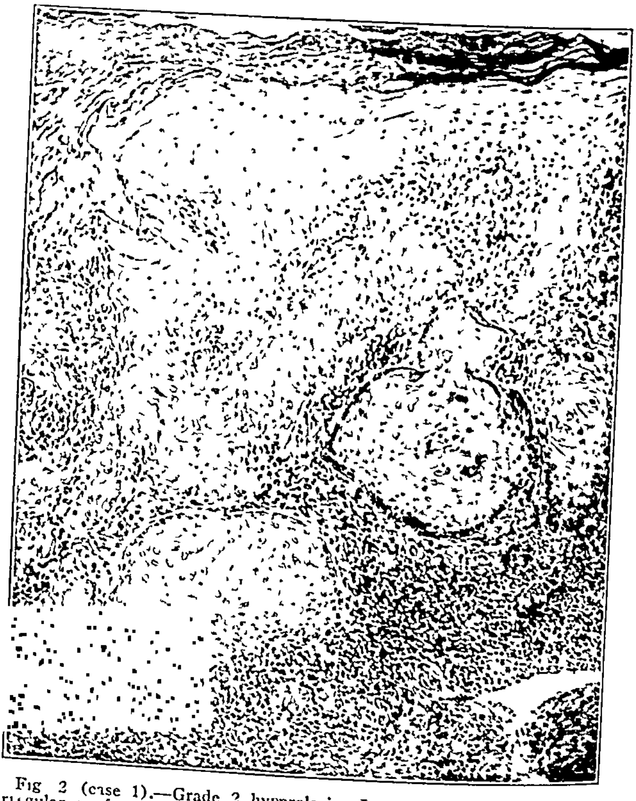

Fig 2 (case 1).—Grade 2 hyperplasia: Interpapillary pegs extremely irregular in form, but there is no subdivision into infiltrative strands.

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[4] Ewing, James: Neoplastic Diseases, ed. 2, Philadelphia, W. B. Saunders Company, 1922, p. 465.

suspicion that the basement membrane is broken. Mitotic figures may be abundant.

Grade 2. Features here are the same as in the foregoing group, but with additions. Thus, the basement membrane is so indefinite in places that it may even be regarded as broken. At such positions the cells may be of an embryonal character nearly or quite that of genuine epithelioma. There may be pearls. The interpapillary pegs may be excessively irregular in form. The features lacking for the unqualified diagnosis of epithelioma are, first, any extensive streaming of cells through a broken basement membrane, and, secondly, any notably deep extension.

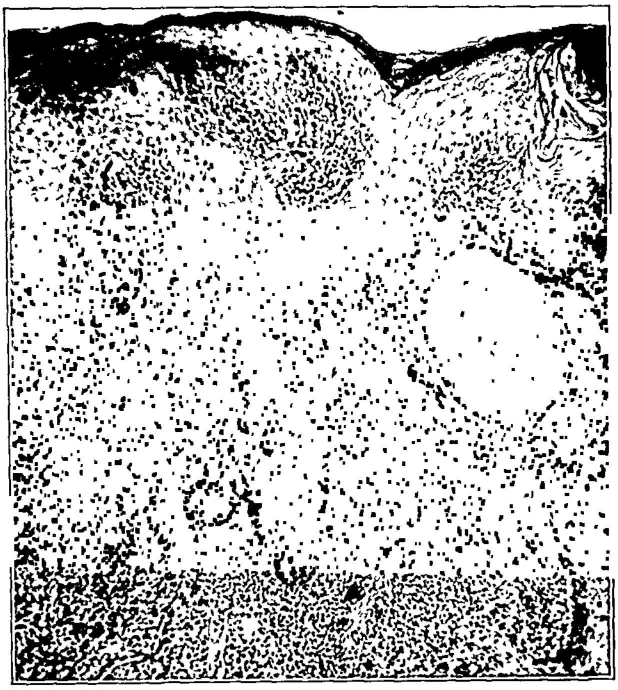

Fig. 3 (case 3).—Grade 2 hyperplasia; similar to figure 2, but showing epithelial pearls in addition.

Grade 3. Appearances here are quite those of epithelioma; by this it is meant that the only circumstances keeping such cases from the unqualified epitheliomatous cases are the clinical ones, such as absence of metastasis, or cachexia (fig. 4). Some cases of blastomycosis reproduce this picture of epithelioma, which explains the goodly number of blastomycosis cases mistakenly diagnosed as epithelioma.

REPORT OF CASES

Eight chronic cutaneous ulcerations supplied such radical pseudo-epitheliomatous appearance as to require more than passing examinations of the sections. No less than thirty sections were examined from each case; in some cases they were taken at so many different levels in the tissue block as to use it up entirely. It would be tiresome to repeat the histologic description in each case; hence only the grade of pseudo-epitheliomatous hyperplasia will be indicated as designated in the preceding section and in the illustrations; exception will be made, however, in those cases illustrated photomicrographically. It is emphasized that only those cases were included in this series in which complete healing was known to have finally taken place.

Case 1.—J. D., a boy, aged 15, complained of ulcers over the shin, present for three months, following lacerations caused by falling against a table. Various home remedies had been applied, but the lacerations refused to heal; indeed, they were slowly enlarging.

When first examined by us there were three closely placed but definite ulcerations, each about 2 cm. in diameter, on one of the shins. The borders were subacutely inflamed, slightly indurated, hyperpigmented, and not undermined. In several places there was a pearly glint, like that of regenerating epithelium. There were numerous punctate pigmented scars in the immediate vicinity of the ulcers. Specific causation could not be established, and they were finally diagnosed as simple chronic traumatic ulcers. In view of the persistence and the suspicious pearly appearance, a biopsy was performed. Much to our surprise, its histology was that of prickle-cell carcinoma (confirmed by two pathologists, both of national reputation). According to the foregoing classification, it was a pseudo-epitheliomatous hyperplasia, grade 2 (fig. 2). The patient was presented before the Philadelphia Dermatological Society,[5] Feb. 8, 1926, in view of the early age at which the lesions occurred. Eventually, all three ulcers were excised widely, although they had healed somewhat under a soothing ointment. Numerous sections from all three portions of the surgical specimens did not show evidence of cancer,—at most there were only a few minute buds extending downward at the original biopsy site. Following skin grafting by the Thiersch method, the ulcers repeatedly healed and broke down, but eventually healed completely.

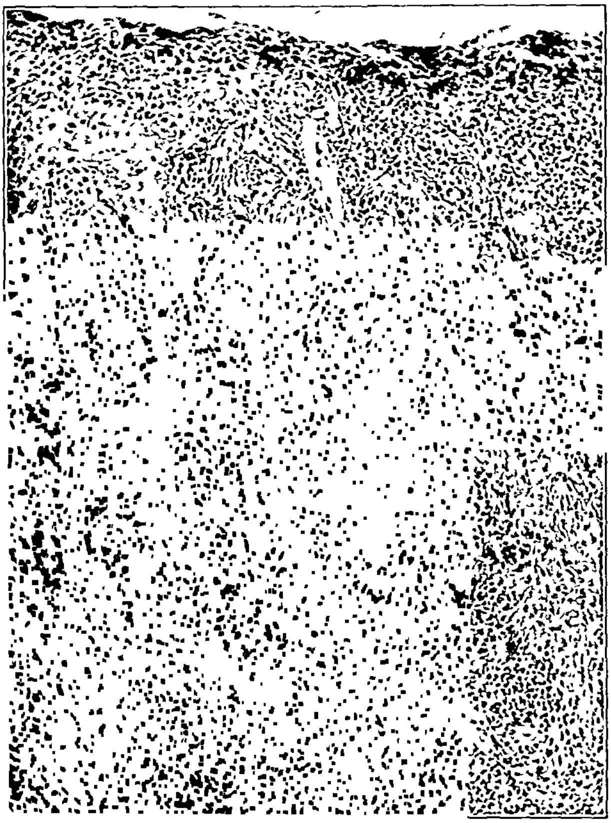

Fig. 4 (case 2).—Grade 3 hyperplasia; histologically perfect squamous-cell carcinoma.

Case 2.—M. C., A school girl aged 17, born in Italy, exhibited an ulcer on the dorsum of the right forearm, near the wrist, of two years' duration. It partially healed each summer. The lesion was about 2 inches long and half an inch wide. It was superficially ulcerated, the borders were not indurated and the base was heaped with crusted vegetations, while small droplets of pus exuded from the central portion. Adenopathy and constitutional symptoms were not present.

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[5] White, Cleveland: Prickle Cell Carcinoma in a Boy Aged Fifteen, abstr. Arch. Dermat. & Syph. 14:93 (July) 1926.

The patient was exhaustively studied in the hospital; cultures were made and guinea-pig inoculations were performed with the result that syphilis, tuberculosis and fungus infections were reasonably excluded as causative. Sections from biopsy showed the epithelial hyperplasia (fig. 4) of squamous-cell epithelioma (grade 3 of the classification). Tissue from a second biopsy, March 17, 1926, did not show epitheliomatous changes; the prickle cells were swollen and the corium was heavily infiltrated with round cells of all kinds, but there was no resemblance to any specific granulomatous process. When the patient was seen, May 7, 1926, the ulcer had healed, but the infiltration had not disappeared. A third biopsy was performed, but sections showed only an acanthosis and a heavy round-cell infiltration of the corium. Eventually, healing was complete.

Case 3.—H. T., a colored man, aged 44, was first seen, Feb. 8, 1926, with an enlarged, swollen, ulcerated, painful tongue. The condition was of three months' duration and was progressive. He had syphilis—both as shown serologically and in sections from the tongue—but the arsenicals had little effect therapeutically. The first series of sections (from biopsy) showed epithelial hyperplasia of a degree to make one suspect cancer: grade 2 in the classification, (fig. 3). The anterior portion of the tongue was then removed surgically, and sections from its left half (site of the original biopsy) again showed definite cancer. The right half was examined in another laboratory, which could find only one small portion suggestive of a malignant condition. The stump of the tongue healed rapidly and there have not been any recurrences. The enlarged cervical glands receded after deep roentgen-ray therapy and radium. The patient has had a full course of antisyphilitic treatment, and within four months showed complete healing.

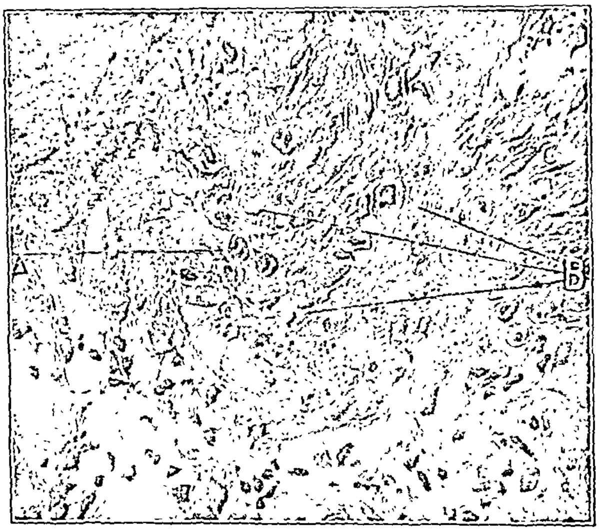


Fig. 5 (case 7).—Mitotic figures, grade 3 hyperplasia: *A*, one pair of cells which has just divided; *B*, three diasters.

This was a case, presumably, of a gummatous tongue, with ulcerations, in which early cancer had secondarily developed, at least in the histologic sense, and possibly also in the fullest biologic one.

Case 4.—J. E., a man, aged 41, had had "boils" on the neck for two years, a particularly large one having become much larger and carbuncular in the three weeks before examination. A portion of the border of the ulceration was taken at biopsy. Sections showed a degree of acanthosis compatible with a malignant process (grade 2 pseudo-epitheliomatous hyperplasia). Since the lesion did not improve under local applications, it was excised surgically. Healing was uneventful.

Case 5.—J. M., a white man, aged 32, employed as a teamster, presented an elevated, round, soft, boggy vegetative ulceration about 4 cm. in diameter on the dorsum of the left forearm. It was of one week's duration, appearing at the site of a recent wound received from a broken glass cannula in the abdomen of a dead cat. Clinically, it was a deep kerion. Smear and culture showed *Trichophyton gypseum.*

Sections from the border of the lesion showed a high grade acanthosis (grade 2) and an underlying acute suppurative dermatitis. The lesion disappeared under local treatment for deep ringworm infection.

Case 6.—M. B., colored, aged 50, with a clear cut case of syphilis, developed ulcers on the leg following trauma one year before presenting himself for treatment. They covered the lower third of the leg on its median parts. Under antisyphilitic treatment they healed in five months. Sections showed a grade 2 hyperplasia.

Case 7.—A. D., aged 33, had had one leg amputated for Buerger's disease, and presented an old ulcer on the remaining ankle. Sections showed a grade 3 hyperplasia. Within five months it had healed under ultraviolet ray therapy.

Case 8.—T. S., a girl, aged 18, entered the Buffalo City Hospital, Jan. 25, 1927, complaining of three ulcers on the right leg. They were very similar to those in case 2. The largest was about 4 cm. in diameter, and was of one and one-half years' duration. There was a flaccid paralysis of the same leg of fourteen years' duration, following an attack of anterior poliomyelitis. The only other pertinent physical observation was a slow pharyngeal reflex. Previous treatment had consisted of local applications of various types of ointments. Clinically, the ulcers were considered traumatic—in all probability factitial—but final proof could not be adduced. Mycotic examination was negative; the urine did not contain bromine or iodine, and bacteriologic study yielded only a culture of *Staphylococcus hemolyticus.* There was a 4 per cent eosinophilia in the blood. In view of the long persistence, a biopsy was taken which included the borders of two ulcers. The histologic appearance was that of grade 3 hyperplasia and compatible with beginning prickle-cell epithelioma (confirmed by a pathologist of wide experience). In view of the negative clinical and other conditions, together with our experience in previously recorded cases, only local treatment was instituted. Wet boric acid dressings were applied for two weeks to combat the slight pyogenic infection, and then fixed applications were used. March 22, 1927, all the ulcers were completely healed and the patient was discharged.

SUMMARY AND CONCLUSIONS

Whereas it has always been recognized that epidermal hyperplasia may take place at the margins of cutaneous ulcers, the extent to which it may develop histologically does not appear to have been emphasized or evaluated heretofore.

The foregoing studies show that every gradation of hyperplasia occurs among such ulcers, even to those which mimic early epithelioma perfectly, as expressed histologically.

At some of the early stages, and even when definitely developed, it may be impossible to distinguish squamous-cell cancer histologically from nonmalignant hyperplasia; there are thus definite limitations to the recognition of earliest cancer which are most unfortunate because they are so important to the patient.

We believe that the diagnosis of carcinoma under these circumstances is unjustified except when the infiltration extends to the level of the sweat glands or farther, and when the pathologist has had extended acquaintance with the behavior of hyperplastic epiderm in general. It is felt that numerous cases diagnosed in the past as beginning carcinoma at the margins of ulcers have been only exaggerated regenerative hyperplasias, and that unnecessarily radical treatment has been inflicted on patients, as in breast cases which McFarland has shown to be only senile or abnormal involution.

The premises on which cancerous changes at the margins of such ulcers have been postulated in the past deserve reexamination in this new light; i. e., whether on a histologic basis alone or supported by supplementary clinical features.

PULMONARY TUBERCULOSIS

SOME INTERESTING CASES

S. W. SCHAEFER, M.D.
COLORADO SPRINGS, COLO.

With the more general use of the roentgen ray during the treatment of cases of pulmonary tuberculosis, especially when serial pictures are taken at intervals of three, six or twelve months, our knowledge and understanding of the process of healing, as well as of destruction in tuberculous disease of the lungs, has been greatly increased. This study has shown us many interesting things, probably among the most important being the fact that tuberculous lesions heal not only by fibrosis with a subsequent permanent scar, but also and very frequently by absorption of the tuberculous deposit without any or only very slight scar tissue formation. It is of interest to know that this fact of the absorption of tuberculous lesions without the formation of scar tissue has been beautifully demonstrated experimentally by Leroy S. Gardner of Saranac Lake. The healing, the formation and the behavior of cavities are also of great interest as the various changes are observed and the results of the physical examination confirmed. Both the absorption of exudate and the gradual diminution in size of cavities are beautifully shown in the roentgenograms in case 1.

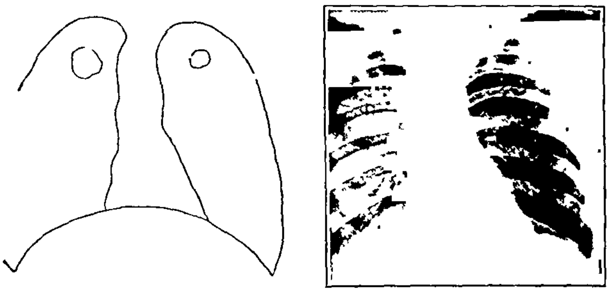


Fig. 1 (case 1).—Marked exudative type of lesion like snow over both lungs; a cavity in each apex.

REPORT OF CASES

Case 1.—F. S., a machinist, aged 30, from Detroit, first came to the free clinic, Feb. 6, 1924, after having been in the city for three weeks. He gave a history of having been ill for two years, so that he had been unable to work; he had steadily grown worse, although under medical care, and had just about used up all his savings, having $35 left on coming to the clinic. A physical examination showed a far advanced case, with marked involvement of both lungs and cavity formation at both apexes. The roentgenograms (fig. 1) confirmed the physical examination, showing an exudative type of lesion quite evenly distributed over both lungs, with a large cavity at the right apex and a smaller one at the left, but both with rather poorly defined walls. This plate suggests a snow storm falling over both lungs; the lesion is a very acute type and shows little tendency toward healing or scar tissue formation. As I understand him, this is the type of lesion that Dr. Kennon Dunham says does not heal in the East but does, sometimes, in Colorado. This patient was so ill, and the prognosis seemed so bad, especially with his very limited financial resources, that we advised him to return to his home town and enter the municipal sanatorium there. This he absolutely refused to do, saying that he had become worse there while now, although here only three weeks, he was already getting better. We communicated with the charities in his city, who acknowledged their responsibility and stated that they would take care of him if he returned there, as they had their own municipal sanatorium, but could not help him in Colorado. He again refused to return, so the local Associated Charities agreed to look after him for a short while. He was put at absolute rest in a cheap, but adequate, boarding house, and was an excellent patient. After two months he had lost his fever, and had gained 10 pounds (4.5 Kg.). This improvement continued steadily; he has gained 30 pounds (13.6 Kg.) and is able to do light work and support himself while he gets strong enough for hard work. A film (fig. 2), taken one year after the first one, Feb. 17, 1925, shows a remarkable clearing of the exudative process in both lungs, although the cavities with their more distinct wall from more adequate scar tissue formation stand out more prominently. Another film (fig. 3) taken, Oct. 9, 1925, shows that the absorption of the infiltration has continued, leaving not scar tissue but good lung parenchyma over the greater part of both lungs, and that both cavities were only about half the size they were six months before. The pathologic physical signs had entirely disappeared except at the apexes, where a few râles could still be heard on the right side; the patient had no cough or expectoration. In this case our high, dry, sunshiny climate must deserve some of the credit for this "cure," for the patient had been doing the same thing under similar conditions in a low, damp climate, and had become progressively worse.

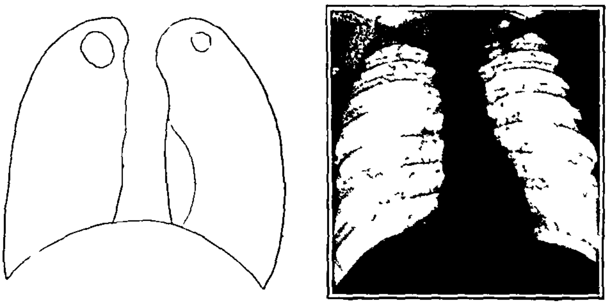


Fig. 2 (case 1).—Film taken one year later, showing remarkable disappearance of exudation, and denser scar formation around cavities.

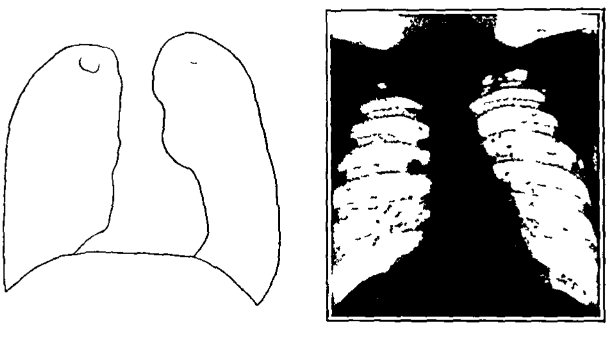


Fig. 3 (case 1).—Film taken eight months later, showing almost complete absorption of exudative process; both cavities are only about half the size they were in the previous film.

Another case is of interest as showing both the healing and the destructive processes in a far advanced condition:

Case 2.—A. S., a girl, single, aged 21, a schoolteacher from New York, seen in 1919, had a moderately advanced case of tuberculosis. On account of financial difficulties, she had to go to work in the spring of 1920 before she was well. She returned in the fall quite ill, and remained in bed during the winter and spring, 1920-1921, gradually getting worse, so that by summer she was acutely ill, with a daily afternoon rise of temperature to 103 F., an almost incessant cough, and 8 ounces of foul sputum (Gaffky 8). Physical examination revealed numerous, very moist, indeterminate râles over both lungs, with cavity formation on the right. Roentgen-ray examination (fig. 4), July 9, 1921, showed extensive parenchymatous infiltration in both lungs, more marked in the right, where there were also cavities. The induction of artificial pneumothorax on the right side had been considered, but after seeing the roentgenograms and the amount of infiltration in the left base, it seemed unwise, even though a portion of this apparent infiltration was, of course, due to the breast shadow. However, the patient was so ill and so uncomfortable that she insisted on trying the artificial pneumothorax. A week later, July 16, another roentgen-ray film (fig. 5) was made to see if it was possible to get a better picture of the left base; this was obtained and at the same time it was found that in the lapse of a week a tuberculous pneumonia was beginning in the second left interspace, just under the point where the shadow of the second rib joins the shadow of the scapula. This again made us hesitate about compressing the right lung; but the patient's condition was so critical, she was so miserable, and a fatal outcome seemed so likely unless something was done that the risk and the chances were carefully explained to her, and, not only with her consent, but at her urgent request, artificial pneumothorax was successfully induced a few days later. The compression was very slowly and carefully done, and the result was most astonishing. Almost immediately the patient lost her incessant cough and profuse expectoration, and the temperature very quickly fell below 100. In certain cases like this one, when artificial pneumothorax is successfully performed, it is one of the most remarkable miracles of modern medicine, converting a hopeless, practically moribund patient into a comfortable, cheerful convalescent in the course of a few days. This was, of course, not an ideal case for artificial pneumothorax; we were simply taking a desperate chance in the hope that if the body were freed from the absorption of poison from a massive lesion in one lung, it might be able to take care of a smaller lesion in the better lung.

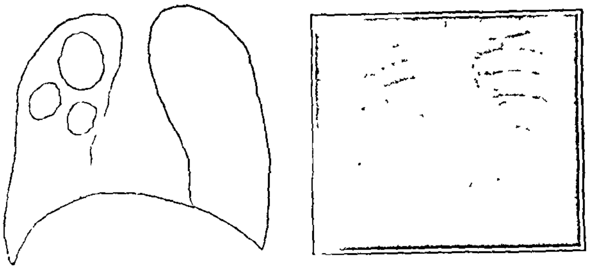


Fig 4 (case 2) —Extensive parenchymatous infiltration in both lungs, more marked in the right, where there is also cavity formation, as shown in the diagram.

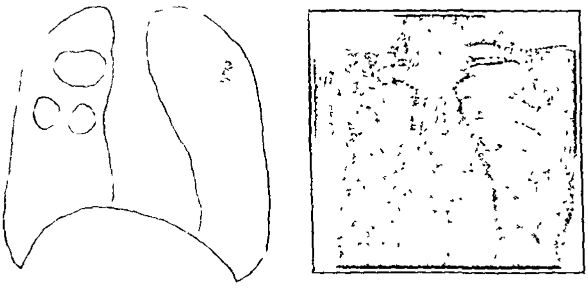


Fig. 5 (case 2) —One week later: There is a small area of tuberculous pneumonia in the second left interspace, which was not present in the preceding film.

The patient's improvement continued, and she was kept in bed for several months, although her temperature was only rarely above normal, never rising higher than 99.2 F. and that only just before her menstrual periods. Another roentgen-ray examination (fig. 6), thirteen months later (Aug. 14, 1922), showed a very good collapse of the right lung, but with one cavity still held open by stringlike adhesions going from the apex of the compressed lung to the apex of the chest wall. The left lung was apparently healing; although râles could still be heard, they were much less numerous and much less moist. Another roentgen-ray examination a year later (Aug. 13, 1923, fig. 7) showed a still better compression with the cavity almost completely closed, and the left lung apparently healed except for a small spot in the third interspace.

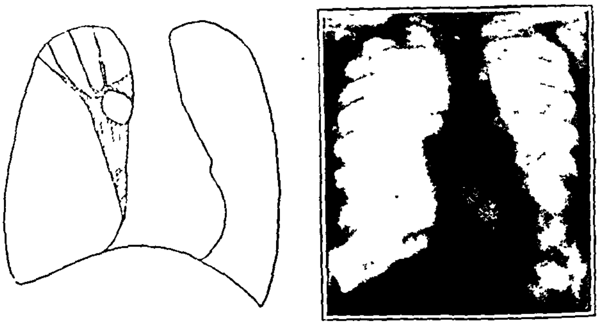


Fig. 6 (case 2).—Thirteen months later: good collapse of right lung, but one cavity held open by adhesions going to chest wall; disappearance of area of pneumonia and general improvement in left lung.

During the summer and fall of 1922, the entire year of 1923, and the spring and summer of 1924, the patient led a practically normal life, and did a considerable amount of tutoring. In the fall of 1924 she did not seem quite so well, and a few râles and roughened breathing could be heard in the left interscapular space. She was advised to stop her work and rest much more, and at the same time the intervals between the pneumothorax treatments were lengthened. Less air was introduced in an attempt to have the right lung reexpand so that the left might be compressed, but without success.

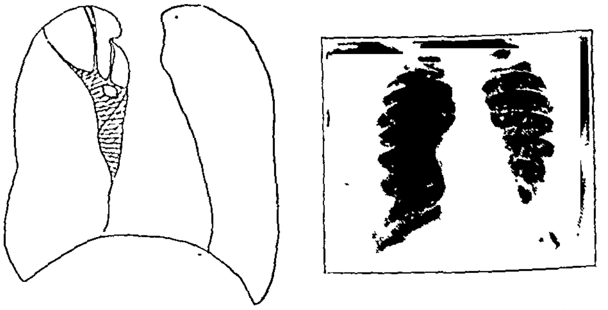


Fig. 7 (case 2).—Film taken twelve months after preceding one: better compression of right lung; great improvement in left lung except for small area of infiltration at third left interspace.

In November, 1924, fifteen months after the last roentgenogram was taken, another roentgen-ray examination was made (fig. 8), which showed a definite increase in the size and density of the area of infiltration in the third and fourth interspace, and also that the cavity in the compressed right lung had entirely closed. During the winter and spring of 1925, the patient kept comparatively quiet and felt well except for occasional attacks of what she called "bronchitis," when her cough became quite troublesome. During the summer she was fairly well, but in September she had a serious upset with high fever and much cough, from which, however, she recovered rather quickly. She remained in bed, and Dec. 3, 1925, another roentgen-ray examination was made (fig. 9), which showed a large cavity deep in the left lung where the area of marked infiltration had been in the previous plate. Two weeks later she had a tremendous hemorrhage, followed by a lobar pneumonia, and died four days later. The advisability of the induction of artificial pneumothorax in this case may be open to question, but without it she would probably have died in 1921; with it, she had four and one-half years of a very happy life.

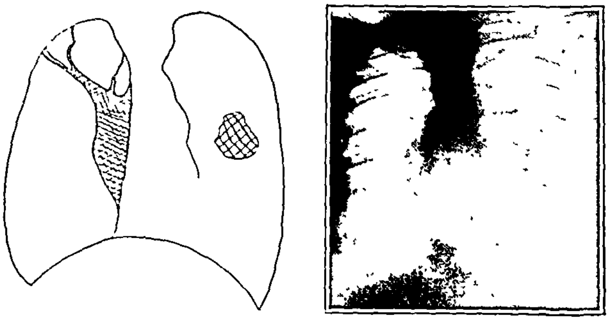


Fig. 8 (case 2).—Film taken fifteen months after the preceding one: cavity in right lung completely closed, but increase in size and density of area of infiltration in third and fourth left interspaces.

Another patient presented an interesting cavity, which again shows what remarkable results can sometimes be obtained with artificial pneumothorax even though it is not used in the orthodox manner; i. e., given only when there is one good lung:

Case 3.—A. W., a married woman, aged 25, had come out from Chicago in 1922 with a far advanced case of tuberculosis. There was involvement of both lungs, with a cavity at the right apex, and of the larynx (fig. 10). Under the routine rest and climatic treatment, with "silence" and a few local treatments, her throat trouble healed and the right lung improved slowly. During the winter of 1923-1924, following an attack of influenza, the patient became worse and in the spring was critically ill, with high fever, almost continuous cough, and much expectoration; she was losing weight rapidly, felt extremely ill, and became dyspneic on the slightest movement, such as turning over in bed. Chest examination at this time showed that the right lung was still in fairly good condition, but that over the entire left lung there was marked impairment of the percussion note; the breath sounds were very soft and distant but were accompanied both on inspiration and on expiration by numerous subcrepitant râles suggesting a tuberculous pneumonia. A roentgen-ray examination, Feb. 25, 1924, confirmed these observations, figure 11 showing marked parenchymatous infiltration over a large portion of the left lung, and a medium sized cavity with a distinct wall at the right apex. Again, this patient was so ill that it seemed as though she would live only a short while unless something drastic was done. Therefore, in spite of the cavity on the right side, it was decided to attempt to collapse the left lung. This was successfully done, with her understanding and consent, in April, 1924. Once more there was almost immediately a remarkable improvement, although in this case the lung had to be collapsed with extreme care and very slowly on account of the great dyspnea present. Another picture, taken, December 30 (fig. 12), showed a very good collapse of the left lung, as well as the almost complete disappearance of the cavity at the right apex. This is the first and only time I have ever seen apparent closure of a cavity from pressure of an artificial pneumothorax on the opposite side. During this time the patient's improvement has continued, although she still has a premenstrual rise of temperature to 99 or 99.2 and she is able to be about more and more all the time. For a while, for two or three days after each refill, she would become very dyspneic, so that we have given less air and have kept a negative pressure to avoid this. The sputum has diminished from 10 or 12 ounces in twenty-four hours in 1924 to 1 or 2 ounces; and her weight has increased from 108 pounds (49 Kg.) in May, 1924, to 146 pounds (66 Kg.) at the present time. Another film (fig. 13), taken, Feb. 6, 1926, shows that with the reduced pressure, the left lung has slightly expanded so that the cavity at the right apex can again be seen, but is much smaller than before the induction of the pneumothorax.

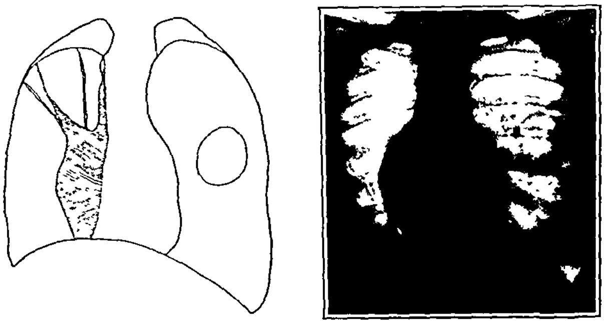


Fig. 9 (case 2).—Film taken thirteen months later: large cavity where area of infiltration was shown in previous film.

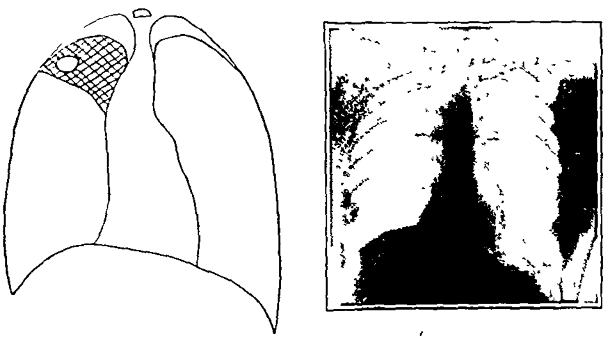


Fig. 10 (case 3).—Marked lesion with cavity formation at right apex; left lung in fair condition.

The entire right lung seems in very good condition, while the left lung shows marked absorption of the exudate, leaving good lung parenchyma with only here and there a small scar from a healed tubercle. We are again raising the pressure in the pneumothorax cavity in an attempt to reclose the cavity on the right side. The patient has not had tubercle bacilli in her sputum for the last ten months.

COMMENT

The ability to free the sputum from tubercle bacilli seems to have a definite bearing on the ultimate prognosis. In cases 1 and 3 the bacilli disappeared comparatively quickly, while in case 2, even though for months at a time the patient had less than half a teaspoonful of sputum in the twenty-four hours, this was always positive for tubercle bacilli when examined.

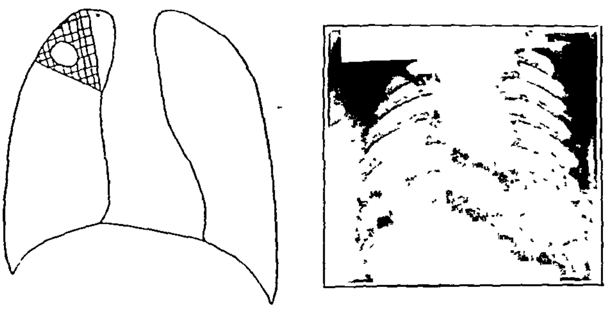


Fig. 11 (case 3).—Film taken eighteen months after preceding one; marked parenchymatous infiltration over left lung; cavity still present at right apex.

All these were far advanced cases, and the patients were kept at absolute rest for months. By absolute rest is meant rest in bed, plus the use of postural rest when indicated and the use of shot bags over the apexes when artificial pneumothorax is not given, especial attention being paid to the amount of talking a patient is allowed to do. In all three cases during the acute upsets, the patients were put on "silence," often for several weeks at a time. It is only by using rest to the nth degree that the absorption of these massive exudates can be obtained.

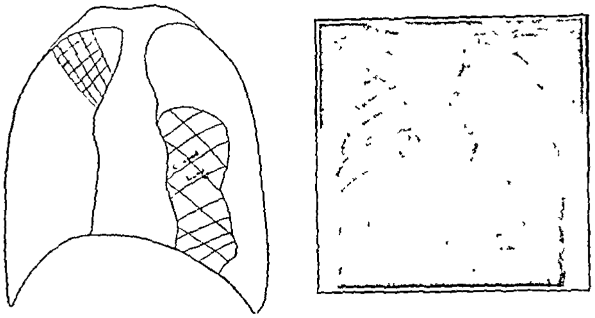


Fig. 12 (case 3).—Film taken ten months after preceding one; good collapse of left lung, with disappearance of cavity at right apex.

SUMMARY

Some of the facts brought out by this group of cases and films might be thus summarized:

1. Tuberculous lesions in the lungs do heal by absorption of infiltrations as well as by scar tissue formation.
2. Tuberculous cavities in the lung do become very much smaller with improvement, and in some cases they apparently entirely disappear as far as the physical observations and the roentgen-ray examination can show.
3. Artificial pneumothorax is often of great aid even in cases of pronounced bilateral tuberculous disease. If the body is relieved of the tremendous poisoning from a massive lesion in one lung, it may be able to cope successfully with a smaller lesion in the other.

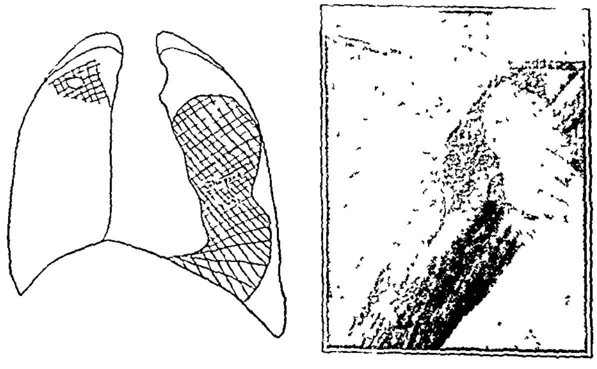


Fig. 13 (case 3).—Film taken thirteen months after preceding one: The left lung has been allowed to reexpand slightly, and the cavity at the right apex can again be seen, though very much smaller.

4. Most tuberculous patients are apparently helped by a high, dry, sunny climate such as that in Colorado, and in some cases such a climate may be the deciding factor in the recovery of the patient.

Exchange National Bank Building.

The Duty of Our Schools.—Children in schools must be allowed freedom to develop active qualities of initiative, independence and resourcefulness, before the abuses and failures of democracy will disappear.—Dewey.

Clinical Notes, Suggestions and New Instruments

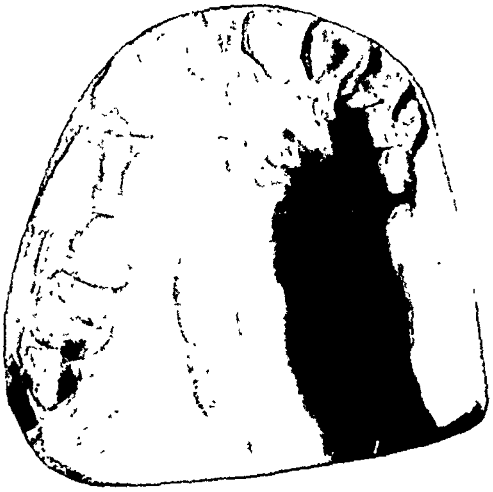
TORUS PALATINUS

JOHN E. LANE, M.D., NEW HAVEN, CONN.

In 1909, Godlee[1] began an article on torus palatinus as follows:

> In May of last year Dr. Morriston Davis brought to me a lady, aged 58, . . . *on account of a small projection obviously of bone, terminating posteriorly a median ridge in the hard palate.* . . . Up to that time I had never heard of the torus palatinus and, surgeon like, I suggested the removal of the supposed exostosis. But my ardor was damped by the deaf husband mistaking my suggestion that it was congenital, for one that it was hereditary, and stating in confirmation that her daughters had the same peculiarity. . . . Naturally, I made inquiries among the dentists, and it at once became clear that to some of them the swelling was familiar.

It is quite likely that physicians who are familiar with this not uncommon anomaly have had an experience similar to Godlee's. Several patients have been referred to me for diagnosis of the condition, and, though I recognized it for what it is, such books as I consulted for information about it did not mention it. Some time ago, when I was demonstrating a rather marked example of it, the name was supplied for me by Dr. George Blumer.



Large torus palatinus.

The torus palatinus is thus described by Merkels:

> The suture which unites the two halves of the hard palate in the midline sometimes shows so markedly raised bony borders, that, even in the living subject, a thick and broad elevation may be felt and seen. This fact was noticed many years ago. Chassaignac believed it to be a syphilitic exostosis. Kupffer and Bessel-Hagen thought it to be a peculiarity of East Prussian skulls. Neither view is correct. We must rather look upon the protuberance as an anomaly which in the first place is entirely harmless and which may appear occasionally in any locality.

After quoting this description, Korner[2] says:

> *If we add to these words of Merkel that the protuberance just described, the torus palatinus, is in many families inherited (Carabelli), we have said everything that is now known about it.*

A considerable number of examples of the condition have been observed, described in detail, and tabulated. However, this brief description is sufficient to identify the condition, which, if known to exist, is unlikely to be confused with anything else.

The patients who have been referred to me had been sent because their physicians had suspected the possibility of the protuberance being either sarcoma or syphilitic periostitis or gumma.

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1. Godlee, R. J.: The Torus Palatinus, Brit. J. Dent. Sc. **52**: 721, 1909.
2. Korner, O.: Der Torus palatinus, Ztschr. f. Ohrenh. **61**: 24, 1910.

I am calling attention to the condition because it is not mentioned in most of the books on diseases of the mouth or in most other textbooks, and because, though it is frequently recognized by physicians and dentists, its name, as far as I can ascertain, is known to few of either profession.

The accompanying illustration is an example of a rather large torus palatinus. Martens,[3] Moral and Friboes[4] and Stieda[5] give detailed descriptions and additional references.

59 College Street.

A CASE OF DIPHTHERIA PROBABLY ACQUIRED BY LABORATORY INOCULATION *

Ruth E. Taylor, M.D., Chicago

Accidental diphtheria infections in laboratories are infrequent. Mallory[1] reported an infection contracted by a student who cut his finger while removing the organs of the neck at an autopsy. Baldwin, McCallum and Doull[2] reported a case in which a physician had pricked his finger with a contaminated needle while carrying out a virulence test. Hammerschmidt[3] reported a similar infection. Riesman[4] reported an infection contracted by a bacteriologist who aspirated virulent organisms while transplanting cultures. In the cases reported, symptoms appeared within from twenty-four to forty-eight hours. The following case would appear to be one of accidental infection as the patient, a woman, aged 54, had been transferring virulent diphtheria cultures forty-eight hours before the onset of illness, and no other source of infection was known.

REPORT OF CASE

The first symptom, a mild sore throat, was noticed late in the afternoon; the following morning the patient was admitted to the hospital acutely ill and apparently very toxic. The throat was intensely swollen, and the tonsils, soft palate and uvula were covered with membrane. The posterior wall of the pharynx could not be seen. Breathing through the nose was difficult because of edema of the tissues, but a membrane could not be seen. Edema of the neck was intense, extending to the midline and well down over the clavicles. The pulse was 112; the temperature, 101.4, and the respiration, 24. The patient was given 20,000 units of antitoxin intravenously and 40,000 units intramuscularly, after three desensitizing doses of serum had been given. Six hours later edema was perceptibly increased, and she was given another 20,000 units intravenously. Twenty-four hours later the edema was decreasing slightly, and the membrane was thickened at the edges. Another dose of 20,000 units was given intramuscularly. Cultures from both nose and throat contained Klebs-Loeffler bacilli. On admission, the urine did not contain abnormal constituents. On the third and fourth days of illness, a trace of serum albumin and a few casts were present. Recovery, for five weeks, was gradual and uneventful, except for an urticarial serum reaction of three days' duration which occurred ten days after the first injection of antitoxin. On the twenty-third day after admission the patient was able to be up and about, and was taken to her home. About two weeks later, weakness of the soft palate was noticed. This was followed by partial paralysis of the pharynx and of all the skeletal muscles. A paralysis of the eye muscles was not noticed. Sensory disturbances included numbness of the hands and feet and difficult equilibration. Eight weeks after the onset of the paralysis all symptoms had disappeared, excepting numbness of the fingers and toes. Cardiac disturbance was not detected at any time during the course of the illness.

SUMMARY

The case described, which was, in all probability, one of accidental laboratory infection, is unusual in that the membrane was extensive and the toxemia severe in less than twenty-four hours after the first symptoms were noticed, and that extensive paralysis occurred, although a large dose of antitoxin had been given within twenty-four hours of the onset of illness.

New and Nonofficial Remedies

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application. W. A. Puckner, Secretary.

ETHYLENE FOR ANESTHESIA (See New and Nonofficial Remedies, 1927, p. 50)

Ethylene-C. L. P.—A brand of ethylene for anesthesia-N. N. R.

Manufactured by the U. S. Industrial Chemical Co., New York (Certified Laboratory Products, Glendale, Calif., distributor). No U. S. patent or trademark.

PROTEIN EXTRACTS DIAGNOSTIC-P. D. & CO. (See New and Nonofficial Remedies, 1927, p. 40).

The following products have been accepted:

*Alfalfa Pollen Protein Extract Diagnostic P. D. & Co.‡ Bean (Kidney) Protein Extract Diagnostic P. D. & Co.**

Prepared by the method given in New and Nonofficial Remedies, 1927, p. 40.

TYPHOID VACCINE (See New and Nonofficial Remedies, 1927, p. 365)

Parke, Davis & Company, Detroit

Typhoid Vaccine (Prophylactic).—(See New and Nonofficial Remedies, 1927, p. 369). Also marketed in packages of one 20 cc. vial (Bio 431) containing 1,000 million killed typhoid bacilli per cubic centimeter.

Typhoid Paratyphoid Vaccine (Prophylactic).—(See New and Nonofficial Remedies, 1927, p. 369). Also marketed in packages of one 20 cc. vial (Bio 446) containing 1,000 million killed typhoid bacilli and 750 million each of killed paratyphoid bacilli A and B per cubic centimeter.

HORLICK'S MALTOSE-DEXTRIN MILK MODIFIER.—A mixture containing approximately: maltose, 63 per cent; dextrin, 19.5 per cent; protein, 11.5 per cent; fat, 1.4 per cent; moisture, 2 per cent, and ash, 2.6 per cent.

Actions and Uses.—On the claim that maltose is more readily assimilable than other forms of sugar, Horlick's maltose-dextrin milk modifier is proposed to supplement the carbohydrate of cow's milk.

Dosage.—Horlick's maltose-dextrin milk modifier may be used in amounts to meet the requirements of a desired feeding schedule.

Manufactured by Horlick's Malted Milk Corporation, Racine, Wis. No U. S. patent or trademark.

Horlick's maltose-dextrin milk modifier is prepared by the action of diastase on wheat flour in the presence of water. The extraction is brought to dryness under a high vacuum. Approximately 2 per cent of potassium bicarbonate is added in the manufacture of the product; about 0.66 per cent while the product is in the liquid extractive state, and about 1.34 per cent after the product has been dried.

Horlick's maltose-dextrin milk modifier is an ivory colored or cream white powder, having a sweet taste. It is soluble in water or milk and is slightly hygroscopic. When in an aqueous solution (1 in 20) it is neutral or slightly alkaline to phenolphthalein and is alkaline to methyl orange.

Add a few drops of solution of iodine to an aqueous solution of Horlick's maltose-dextrin milk modifier (1 in 10): no blue color is produced (*absence of starch*).

Determine the maltose content of Horlick's maltose-dextrin milk modifier gravimetrically by the Munson & Walker method. Determine the fat content by extraction in an extraction tube, using the neutral Roese-Gottleib method; evaporate the extraction and weigh the residue. Determine the protein content by calculation from the nitrogen content as found by the Kjeldahl-Gunning-Arnold method.

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[3] Martens, H. T.: Der torus palatinus als Rassenmerkmal, Rostock, 1911, abstr. by author, Ztschr. f. Ohrenh. **63:** 153, 1911.

[4] Moral and Friboes: Atlas der Mundkrankheiten, Leipzig, Vogel, 1924, Tafel 21, fig. 80.

[5] Stieda, Ludwig: Der Gaumenwulst (Torus palatinus) Ein Beitrag zur Anatomie des knöchernen Gaumens, Virchow's Festschrift **1:** 145, 1891.

* From the John McCormick Institute for Infectious Diseases.

[1] Mallory, cited by Nuttall and Smith, Bacteriology of Diphtheria, 1913.

[2] Baldwin, A. H.; McCallum, Frank, and Doull, J. A.: A Case of Pharyngeal Diphtheria Probably Due to Auto Infection from a Diphtheria Lesion of the Thumb, J. A. M. A. **80:** 1375 (May 12) 1923.

[3] Hammerschmidt, J.: Accidental Infection with Diphtheria, München. med. Wchnschr. **71:** 1755 (Dec. 12) 1924; abstr. J. A. M. A. **84:** 408 (Jan. 31) 1925.

[4] Riesman: Two Cases of Diphtheria, One from Laboratory Infection and One in an Infant Eleven Days Old, Philadelphia M. J., 1898, pp. 423-426.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JUNE 18, 1927

THE ADJUSTMENT TO VARYING ATMOSPHERIC CONDITIONS

Man is exposed to marked variations in his atmospheric environment through seasonal changes such as occur naturally in the temperate zones or through changing elevation in a tropical climate. These undoubtedly have some effect on his health and efficiency, and temperature and humidity have come to be regarded as the most influential factors associated with the atmospheric conditions. Man's atmospheric environment may be further altered, however within doors through influences brought about by artificial conditions of living and working, whether in the home or in the industries. There are numerous occupations involving exposure to extremes of heat and cold, dampness and sudden changes. Out of several hundreds of such industrial conditions that have been listed,[1] the following will serve to illustrate the diversity of fields in which the problems of abnormal atmospheric working conditions are likely to present themselves: makers of artificial ice, caisson workers, coke-oven workers, cold-storage plant workers, furnace workers, glass makers, hothouse workers, laundry workers, dye makers, foundry workers, miners, pottery workers, sailors, telephone linemen, and welders.

Students of hygiene are essentially in agreement that the menace of "bad air" does not consist in carbon dioxide, a natural product of expiration, or in some subtle organic poison such as was once assumed to occur. Accordingly, nearly twenty-five years ago a writer[2] emphasized the fact that a "breath poison" does not exist, that the carbon dioxide content of the air is not a correct measure of the necessity for ventilation, that injury to health proceeds from excessive heat and humidity, and that the cooling and drying power of the atmosphere is of more value than the control of impurities or of gases like carbon dioxide. It should be noted, however, that with the advent and ubiquitousness of the automobile the occasional dangers of the resulting carbon monoxide and other exhaust gases need at least to be kept in mind in discussions of modern atmospheric conditions.

Interest in the methods of combating unfavorable atmospheric conditions has been stimulated by the growing recognition of the economic advantages that result from work carried out under the most satisfactory conditions of personal activity. The benefits of proper heating and cooling and suitable ventilation can sometimes be expressed in dollars and cents as well as in terms of physiologic well being. Consequently, efforts to secure appropriate atmospheric environments have been initiated in many quarters. The science of hygiene thus has acquired the imperative duty of giving careful consideration to all that is involved in securing the most satisfactory atmospheric conditions. Experts of the United States Public Health Service[3] have pointed out that the effects on the human body of abnormal air temperatures are modified by humidity, air motion, exercise, physical condition of persons exposed, food eaten, clothing worn, and idiosyncrasy. Humidity increases the discomfort and ill effects of both high and low temperature. It has been concluded that there must necessarily exist certain combinations of temperatures, humidities and air motion that will produce the same total body heat loss by radiation, convection and evaporation, and therefore the same feeling of comfort or discomfort. Any such combinations are equivalent and have been described as "effective temperatures." Comfort, as determined by both sense and physiologic reactions, is stated to depend solely on "effective temperature."

It will perhaps be more surprising to learn from the government report that the limiting physiologic reaction caused by high temperatures, as determined by comfort, is not body temperature but the pulse rate. When this is above 135, the first symptoms of discomfort arise; when above 160, the effects range from severe to distressing. The upper limit in atmospheric conditions at which work can be performed efficiently corresponds to a dry-bulb temperature of 100 F. and a relative humidity of 30 per cent, or 90 to 95 F. in still saturated air, even when the subject is stripped to the waist. The optimal temperature at rest is around 66 F.; and with hard work the optimal temperature is 59.5; 43 F. was pronounced as too cold with or without air movement, regardless of humidity. In still air, no temperature is too low to prevent outdoor work.

The problem of human adaptation to certain tropical climates has been discussed repeatedly, and recently in connection with the "White Australia" policy.[4] Now that diseases of exogenous origin can be better controlled and averted, and that the principles of proper diet are better understood, the possible deleterious effects of climate per se demand special consideration. According to Sundstroem,[4] decrease in cooling power in the more humid parts of the tropics constitutes the principal physiologic menace to the welfare of the white races in such regions. He believes that the body is capable of setting in motion a chain of adaptive mechanisms that help to adjust threatening disproportions between heat production and heat dissipation. A lowering of basal metabolism probably constitutes one such reaction. Whether this implies a lowered "vitality" may be debated. Sundstroem asserts that some relief may ensue to the organism if it succeeds on the one hand in keeping down the total sum of active protoplasm and, on the other hand, in enlarging the relative area of skin surface. He states that evidence has been produced to indicate the existence of both these mechanisms at least in animals. Man possesses, in his perspiring integument, an effective heat dissipating organ, and we assume that his power of adaptation to a tropical climate is more or less proportional to the efficiency of his sweat glands. But, Sundstroem concludes, it is conceivable that in consequence of this profuse perspiration the burden and the risk of breakdown will only be shifted from the regulation of heat to that of water. Tropical climate seems to tend to establish a new level of equilibrium between the organism and its environment. In relation to this process the mobilization of water in the body may deserve more intensive study than it has received.

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[1] Robertson, D. G.: An Index to Heal Service Publication 22, Department of Health,

[2] Mehl, W.: Kohlensäuremassstab; Ate stab; zugleich ein Beitrag zur Sicherung hyg die Luft und die Wärme dicht besetzter Raume, Gesundheit, Leipzig, 28: 33, 73, 103, 1903.

[3] Sayers, R. R., and Davenport, Sara J.: Review of Literature on the Physiological Effects of Abnormal Temperatures and Humidities, Pub. Health Rep. 42: 933 (April 8) 1927, which has furnished much of the information for the discussion above.

[4] Sundstroem, E. S.: Contributions to Tropical Physiology with Special Reference to the Adaptation of the White Man to the Climate of North Queensland, Univ. of California Publications in Physiology 6: 1, 1926.

ERGOSTEROL, A PRECURSOR OF THE ANTIRACHITIC VITAMIN

Not long after the discovery that exposure of various types of foods to ultraviolet rays will endow them with antirachitic potencies, the "receptive" substance capable of becoming thus activated appeared to have been found. Independently, but at about the same time, it was ascertained by three groups of biochemists[1] that the higher alcohol cholesterol, having the characteristics then known of the pure substance, was rendered antirachitic by exposure to ultraviolet rays. Meanwhile, as was recently pointed out,[2] the earlier expressed suspicion that an impurity in the usually available samples of cholesterol may be the responsible factor concerned in the activation by ultraviolet rays has gained in importance. On the one hand, the evidence is increasing that cholesterol that is highly purified by chemical means loses the property of becoming antirachitic by irradiation; and, on the other, some success has followed the attempts to isolate and identify the effective "impurity," the so-called provitamin or precursor of vitamin D.

A recent writer has remarked that the fact that the presence of an impurity in such a well crystallized substance as cholesterol has for more than a hundred years escaped recognition by chemists is explained by the minute amount (1:2,000) concerned, and emphasizes the delicacy of the biologic test. The investigation of the nature of the "provitamin" has been facilitated of late by the introduction of spectroscopic tests in place of the somewhat tedious animal experimentation. Active cholesterol gives a characteristic absorption spectrum in the ultraviolet region. The latest evidence as to the nature of the impurity present in ordinary sterols, of both animal and plant origin, responsible for their activation by ultraviolet rays leads to the view that the receptive substance is a sterol of an unsaturated and labile type, of which ergosterol is the only known representative.

Ergosterol has been found by Rosenheim and Webster[3] to possess the same characteristic absorption spectrum in the ultraviolet as nonpurified cholesterol, the intensity of the absorption, however, being enormously increased. The biologic tests with irradiated ergosterol have been astounding in their outcome. According to the British biochemists[3] a daily dose of 0.0001 mg. of irradiated ergosterol cured and prevented rickets in rats kept on a rachitogenic diet. Even this does not represent the maximal potency of the new artificial products. As Rosenheim and Webster point out, irradiated ergosterol is therefore the most potent antirachitic substance known, 5 mg. being equivalent to approximately 1 liter of a good cod liver oil. They note further that a dose 10,000 times greater than what is at present regarded as an effective dose did not produce obvious ill effects on rats under the experimental conditions used.

THE JOURNAL[2] has maintained that, with the subject in a state of such active study and continual flux, final pronouncements should be withheld. For the moment, at least, the conclusion seems justified that the naturally occurring parent substance of vitamin D is ergosterol or a sterol possessing the same absorption spectrum and physiologic activity. The admixture in cholesterol from all animal sources (brain, eggs, gallstones) of a sterol with more than one double bond seems likely, in view of the well known occurrence in phytosterols from vegetable oils, seeds and the like of other representatives of this class, containing two double bonds. Although ergosterol was originally isolated by Tanret from ergot, and named accordingly, similar or identical sterols ("mycosterols") have been obtained from a wide range of the lower plants. The action of ultraviolet rays on ergosterol leads to an obvious physical change and the production of a yellowish resin. The nature of the intramolecular change that gives rise to the vitamin formation is at present unknown. The importance of these discoveries can scarcely be overemphasized; they also reflect great credit on the indefatigable investigators in this country and abroad who have made the striking observations.

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[1] Rosenheim, O., and Webster, T. A.: Lancet **1**: 1025 (May 16) 1925. Steenbock, H., and Black, A.: J. Biol. Chem. **64**: 263 (June) 1925. Hess, A. F.; *Weinstock, Martha; and Helman, F. D.: ibid.* **63**: *305* (March) 1925.

[2] The Search for the Antirachitic Vitamin, Current Comment, J. A. M. A. **88**: 1486 (May 7) 1927.

[3] Rosenheim, O., and Webster, T. A.: The Parent Substance of Vitamin D, Biochem. J. **21**: 389, 1927.

DIET CONTROL IN NEPHRITIS

Clinicians are awakening to a realization that the dietary management of certain types of nephritis has perhaps been too rigorously "standardized" in the past. For the most part the diets prescribed are considerably limited in one direction or another; and the restricted intakes are often ordered somewhat indiscriminately for all patients in the category of renal disorder. This makes for convenience of administration, though by no means always for wholesome therapy. The general dictum for the dietary regulation is to spare a diseased kidney unnecessary functional labor, and at the same time furnish the nutrients distinctly appropriate for each case. Sometimes the application of these principles calls for a choice between disadvantages rather than a discrimination between advantages.

One of the recent changes in the dietotherapy of nephritis concerns the physician's attitude toward the protein factor in nutrition. Heretofore the beliefs, on the one hand, that protein feeding can in itself produce nephritis and, on the other, that a diminution of protein catabolism will "spare" the kidneys from the effort of excreting nitrogenous waste products have been responsible for the almost universal institution of low protein intakes in all kidney disorders. Peters[1] has recently pointed out that the loss of protein in certain types of nephritis may be considerable. In the chronic cases a consideration of the problem of nutrition must take into account not merely days but months of tendency toward a negative protein balance. Hence, the maintenance of a minimum nitrogen metabolism and at the same time of nitrogen equilibrium (that is, a condition in which an individual is not forced to draw on his essential tissues for subsistence) can be effected, according to Peters, only by the administration of adequate amounts of both protein and calories. If calories are deficient, more protein will be burned; if protein sinks below a certain level, all the calories in the world will not prevent wasting.

An important cause of prolonged depletion of the protein stores may be found in a persistent albuminuria. The excreted protein is derived from the blood plasma to such an extent as to lead sometimes to actual lowered concentration of plasma proteins. This condition undoubtedly is a contributory factor in the genesis of edema. Various forms of malnutrition, not merely those presented by chronic nephritis, may be attended with low plasma protein content and edema; and these conditions may even develop without the intervention of albuminuria. The supply of adequate protein in such instances thus promises the relief of a series of interrelated untoward symptoms. Studies of parenchymatous nephritis (so-called nephrosis or the edematous type of nephritis) have revealed the fact that patients with this condition have an enormous ability to retain nitrogen over long periods when they are fed an excess of protein, and that this nitrogen storage is not attended by an elevation of the blood nonprotein nitrogen. The only deductions one can make from these facts, Peters adds, are that these patients, either because of the wasting nature of the disease or the misguided restrictions to which they have been subjected by physicians or dietitians, have been starved of protein and are therefore retaining protein to replenish their wasted tissues. It is inconceivable, he concludes, that retention of nitrogen for the restoration of normal tissue can be deleterious to the kidney. Certainly, it does not increase blood nonprotein nitrogen. Even if it did cause moderate nonprotein nitrogen increases, it might not be harmful. In a practical way, it is advisable to remember the dictum that the malnutrition resulting from protein starvation cannot be relieved by any food other than protein. The reduction of the protein intake to a minimum in such conditions should at most be only a temporary expedient adopted, perhaps, to help control certain exacerbations associated with a high nonprotein nitrogen content of the blood and uremic symptoms.

Current Comment

ABSORPTION OF VITAMIN D THROUGH THE SKIN

The antirachitic factor, now commonly designated as vitamin D, seems to be essential for the proper development and maintenance of the skeletal structures. Apparently it is not produced within the living body of man. The necessary supply is ordinarily derived either through the ingestion of antirachitic foods or through exposure of the skin to sunlight or ultraviolet rays. The last mentioned method, while unquestionably effective, is for obvious reasons somewhat uncertain with respect to precise dosage. The alimentary path of introduction, usually the most convenient way for antirachitic therapy, sometimes though rarely interposes barriers that may impair its effectiveness. Alternative procedures are therefore desirable for exceptional emergencies. Accordingly, it has been found that subcutaneous administration of cod liver oil may lead to curative results attributable to the fat-soluble vitamins. Such a method is, however, far from welcome, owing to the extreme difficulty with which any fat can be utilized directly after parenteral introduction—that is, without the intervention of the usual digestive processes. At the Lister Institute in London it has been found by Hume, Lucas and Smith[1] that vitamin D as it is

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[1] Peters, J. P.: The Principles of Diet Control in Nephritis with Especial Reference to Protein and Salt Restriction, J. Am. Diet. A. 2:137 (Dec.) 1926.

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[1] Hume, E. M.; Lucas, N. S., and Smith, H. H.: On the Absorption of Vitamin D from the Skin, Biochem. J. 21:362, 1927.

secured in irradiated sterols[2] can be absorbed from a small area of uninjured skin in sufficient amount to supply the needs of the organism. The English investigators recall the suggestion of Hess that activation of hydrous wool fat by sunlight and its subsequent absorption through the skin is a possible source of this vitamin. The possibility of antirachitic therapy by inunction is thus presented.

THE PROMOTION OF SUGAR UTILIZATION

The physiologic performance of certain organs is improved by exercise. The muscles exemplify in striking ways the advantages that may accrue from training. They grow and thrive from use, within reasonable bounds at least. Atrophy is a penalty of disuse. Whether increased functional opportunities promote comparable reactions on cells concerned more exclusively with metabolic transformation is not similarly established. Lennox[3] has made a suggestive series of observations indicating that when duplicate amounts of dextrose are administered, either intravenously or orally, at successive intervals the response differs. The temporary hyperglycemia usually resulting is noticeably less after the first dose, thus implying a more prompt utilization. Lennox concludes that his experiments emphasize the importance of glucose as a stimulator of the blood sugar regulating mechanism of the body. Whether this augmented disposal means more rapid storage of sugar as glycogen, more rapid absorption into the tissues, or an increased rate of oxidation cannot yet be foretold. From a practical standpoint, however, Lennox suggests that possibly patients could utilize carbohydrate food better if it were given in small amounts frequently repeated.

AMERICAN TYPE CULTURE COLLECTION

In 1911 a bacteriologic collection and a bureau for the distribution of bacterial cultures was established in the American Museum of Natural History in New York. Dr. C.-E. A. Winslow was placed in charge of this collection, and a catalogue published in December, 1912, listed 350 species. By 1922 the collection had grown so that its care in New York was no longer practical. It was then established in the Army Medical Museum at Washington, D. C., under the auspices of the Society of American Bacteriologists. In 1925 the National Research Council secured a grant from the General Education Board to develop this collection and, if possible, put it on a self-supporting basis. It is now known as the American Type Culture Collection and is assembled in two parts—the fungi under Dr. Charles Thom and Margaret B. Church of the Department of Agriculture, and the other cultures under the care of Drs. George H. Weaver and Leila Jackson in the John McCormick Institute for Infectious Diseases in Chicago. The catalogue today lists about 1,440 cultures, including 256 fungi and 200 yeasts. During the year just ended, 2,750 cultures have been furnished to institutions for purposes of teaching and research, to health laboratories and to individuals. A nominal charge of one dollar per culture, with addition for packing and postage, has been made to meet expenses. Day after day the cultures are transferred and maintained in a state of purity. Here is a complete collection of micro-organisms of various species isolated by bacteriologists all over America, indeed, all over the world, and available for research and study—a collection unprecedented and of value which can hardly be estimated. Its maintenance is a conspicuous achievement for the good of bacteriologic and medical science.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

COLORADO

Personal.—Dr. Allen K. Krause, associate professor of medicine, Johns Hopkins University School of Medicine, Baltimore, will give a series of lectures on tuberculosis, July 5-8, in Denver under the auspices of the Denver Sanatorium Association.——Dr. Henry R. McGraw, Denver, has been appointed a member of the state board of medical examiners to succeed Dr. David A. Strickler.——Dr. Joseph R. Blalock, Pueblo, has been appointed medical officer of the One Hundred and Sixty-Eighth Field Artillery (Reserve).

GEORGIA

Home of Richmond Academy of Medicine.—The historic structure which formerly was a part of the medical department of the University of Georgia, Augusta, has again been turned back to the medical school after use for years for the technical courses of the boys' high school. The building will be remodeled as a home for the Richmond County Medical Society, which will be reorganized as an academy of medicine. Its Doric columns and dome will be an interesting feature of the one hundredth anniversary of the founding of the medical school, for which celebration next year plans are being made. In its capacity as the center of organized medicine in the community, a portion will be set aside for the use of the woman's auxiliary and fitted up for the preparation of the famous suppers that precede each gathering of the county medical society.

HAWAII

Territorial Medical Election.—At the annual meeting of the Hawaii Territorial Medical Association, Honolulu, May 2-4, Dr. Arthur G. Hodgins, Honolulu, was elected president, and Dr. Forrest J. Pinkerton, Honolulu, secretary. The next meeting will be held in April, 1928, at Hilo.

ILLINOIS

Liquor Licenses Revoked.—The district prohibition administrator with headquarters in Chicago recently revoked the liquor licenses of the following for violation of the prohibition law and regulations:

Dr. Mat Bloomfield, Joliet
Dr. Cyril L. Hale, Chicago
Dr. Robert S. Kemp, Calumet City.
Dr. George G. O'Brien, Chicago

Personal.—Dr. Robert G. Bell has resigned as assistant medical director of the Oak Forest Tuberculosis Hospital, Oak Forest, to become medical director of the Champaign

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[2] Ergosterol, A Precursor of the Antirachitic Vitamin, editorial, this issue, p. 1969.

[3] Lennox, W. G.: Stimulation of the Sugar-Regulating Mechanism as Shown by Duplicate Blood Sugar Curves, J. Biol. Chem. **73**: 237 (May) 1927.

County Tuberculosis Sanatorium at Urbana.——Dr. Charles L. Weber assumed the duties of health officer of Cairo, June 1, to succeed Dr. Bellenden S. Hutcheson.——Dr. Frank Cohen, Quincy, was elected president of the Illinois Medical Laboratory Association, it is reported, at the recent meeting in Moline.

Typhoid and Tuberculosis Maps of Illinois.—The thirty-four counties in the extreme southern third of Illinois lost 116 inhabitants by typhoid during 1926; the other sixty-eight counties of the state lost only 114. The population of the thirty-four southern counties is about 1 million people, and of the other sixty-eight counties about 6 million. The state department of health has divided a map of the state into three parts illustrating the typhoid mortality. The northern third had a typhoid mortality of 1.3 per hundred thousand in 1926, the central portion, 3.3, and the southern portion, 11.8. The tyhoid death rate of the state as a whole, 3.2 per hundred thousand of population, was the lowest on record in a full year. There were twenty cities of 10,000 or more population and twenty-seven counties from which no deaths at all from typhoid were reported. A map prepared by the state health department for tuberculosis tells a different story. The southern thirty-four counties are again indicated in black with a death rate of 80.8 per hundred thousand for tuberculosis. The northern thirty-three counties of the state, also represented in black, have the death rate of 80.7; the central portion of the state is only traced in black lines for here the tuberculosis mortality fell to 60.4. For the state as a whole the tuberculosis death rate in 1926 was 76.3, a decrease of nearly 4 per cent over the previous year, while the general death rate for the state went up more than 2 per cent.

Chicago

Hospital News.—The Illinois Masonic Hospital, Wellington Avenue and King Place, has dedicated a new unit of eighty beds costing about $700,000.

Society News.—The Chicago Tuberculosis Institute was awarded the Christmas seal publicity prize offered to cities raising more than $100,000 in the Christmas seal sale at the National Tuberculosis Conference, recently, in Indianapolis. The last year's seal sale amounted to $225,000.——The Medical and Dental Arts Club met in the auditorium of the new building at Wabash Avenue and Lake Street, June 6, and was addressed, among others, by Dr. Herman N. Bundesen, city commissioner of health, on "Flood Control Problems of the Mississippi."——Dr. Frank Lee Stone addressed the Chicago Gynecological Society, June 17, on "Lipiodol and Roentgen Ray as a Diagnostic Aid in Gynecology," and Dr. Carl P. Bauer on 'Comparative Study of Convalescence in the Vaginal, Supravaginal and Total Abdominal Hysterectomy in One Hundred and Fifty Selected Cases."

Appointments at Northwestern — Kendall and Ranson Return.—Arthur I. Kendall, Ph.D., professor of bacteriology and public health at Washington University School of Medicine, St. Louis, has been appointed professor of bacteriology at Northwestern University Medical School. Dr. Kendall was formerly dean at Northwestern University Medical School. William T. Bovie, Ph.D., Medical School of Harvard University, Boston, has been appointed professor of biophysics at Northwestern; Dr. Hamilton R. Fishback, Chicago, has been appointed professor of pathology; Dr. Harry B. Culver, assistant professor of urology; Goodwin L. Foster, Ph.D., University of California Medical School, assistant professor of biochemistry, and Dr. Stephen W. Ranson, professor of neuro-anatomy, Washington University School of Medicine, has been appointed to a similar position at Northwestern; Dr. Ranson was formerly professor of anatomy at Northwestern. The new buildings on the McKinlock Campus, East Chicago Avenue near the lake, were formally dedicated, June 13-17, during a week of special clinics and meetings, which were noted in The Journal, May 21, p. 1647.

Home for Convalescent Children Affiliates with University.—The Country Home for Convalescent Children at Prince Crossing near West Chicago was formally taken over by the University of Chicago, June 13, at a ceremony presided over by President Max Mason, and attended by members of the board of trustees of the university and the convalescent home and by others. The home was founded in 1911 by Mrs. W. J. Chalmers after two years had been spent in raising sufficient funds. The property comprises 96 acres and buildings which were turned over to the university, as well as the endowment funds of about $1,200,000. The institution was founded for the care, cure and education of crippled children, and at present 101 are receiving its benefits. It will be an important link in the medical progress of the university, President Mason said, especially in connection with the work of the Bobs Roberts Memorial Hospital for Children, and in connection with the pediatric and orthopedic departments. The affiliation was first suggested several years ago by Dr. Frank Billings. The formal transfer took place, Monday, in the library of the home which was built by funds donated by Mrs. Chalmers' daughter, Mrs. Norman Williams. On the new board of trustees are Mr. and Mrs. Chalmers, Max Mason, Frederic C. Woodward, Charles H. Schweppe, Albert H. Sherer and Frank McNair, and there is a board of managers of thirty-two members.

INDIANA

Temporary Injunction Against Vaccination Order.—Judge Leathers issued a temporary injunction, June 4, prohibiting the board of health and school board of Indianapolis from enforcing an order requiring vaccination against smallpox for attendance at school. This action followed the judge's overruling of a demurrer presented on behalf of the city board of health and the school board to an injunction suit filed by opponents of the order requiring vaccination. Dr. Herman G. Morgan, secretary, city board of health, said, it is reported, that the number of cases of smallpox had increased to 224; that there was at that time an average of ten new cases a day and two deaths during May, and that the vaccination order was necessary.

Society News.—At a meeting of the Sixth District Medical Association, May 26, Connersville, Dr. Larue D. Carter, Indianapolis, spoke on "Head Injuries"; Dr. Martin H. Fischer, Cincinnati, "Arteriosclerosis," and Dr. John A. MacDonald, Indianapolis, "Subdiaphragmatic Abscesses."——Dr. Evarts A. Graham, St. Louis, addressed the staff of St. Mary's Hospital at the annual banquet, Evansville, May 25, on "Chest Surgery."——Dr. John H. Reed, Logansport, was elected president of the Eleventh Councilor District Medical Society, May 19; the loving cup for the best attendance of constituent societies was awarded to Carroll County. The next meeting will be at Delphi.——Dr. Charles S. Williamson, Chicago, professor of medicine, University of Illinois College of Medicine, Chicago, addressed the Tippecanoe County Medical Society, June 9, on "Newer Knowledge of Iron in the Anemias," and held a clinic at St. Elizabeth's Hospital on heart and kidney cases.——Dr. Virgil E. Simpson, Louisville, Ky., addressed the Muncie Academy of Medicine, April 22, on "Diabetes Mellitus."

IOWA

Dr. Griswold Goes to Michigan.—Dr. Don M. Griswold, one of several teachers at the State University of Iowa College of Medicine who resigned recently, has been appointed state deputy health commissioner of Michigan, it is reported. Dr. Griswold graduated from the University of Michigan, and was formerly director of laboratories in the Detroit Department of Health. From there he went to the International Health Board of the Rockefeller Foundation, then to the State University of Iowa College of Medicine as professor of hygiene and preventive medicine, and as state epidemiologist. Dr. Griswold for a time was the state health commissioner of Iowa.

KANSAS

Dr. Brinkley's Italian Recognition Annulled.—It appears that the University of Pavia, Italy, in July, 1925, issued a diploma of graduation from that university to John R. Brinkley, Milton, Kan., based on the recognition of a diploma granted him by the Eclectic Medical University of Kansas City, Mo. A letter from the rector of the University of Pavia states that the ratification of Brinkley's credentials has been annulled, and through the Italian consul Brinkley has been asked to return the document given him. An item in regard to the annulment of the recognition granted to Dr. Brinkley's credentials appears in the current number of the Italian medical journal *Policlinico*.

LOUISIANA

Society News.—Dr. Abraham L. Levin addressed the Orleans Parish Medical Society, New Orleans, May 23, on "Extensive Colonic Polyposis with Report of Three Cases"; Dr. Elliott Kiblinger, "Management of Labor," and Drs. Hilliard E. Miller and Walter F. Henderson on "Determination of Pathology in the Fallopian Tubes by the Injection of Iodized Oil."

Health Conference Concerning Flooded States.—A conference on health in the flooded area of the Mississippi Valley was held in New Orleans, June 5. In attendance were Hugh S. Cumming, Surgeon General, U. S. Public Health Service; Drs. William R. Redden, of the Red Cross; John A. Ferrell, of the Rockefeller Foundation; John McMullen, Allan J. McLaughlin, William C. Rucker, Knox E. Miller and Kenneth F. Maxcy, all of the U. S. Public Health Service, and the following state health commissioners: Drs. Oscar Dowling, Louisiana; Felix J. Underwood, Mississippi; James Stewart, Missouri; Arthur T. McCormack, Kentucky; Eugene L. Bishop, Tennessee; William F. King, Indiana; Valeria H. Parker, of the American Social Hygiene Association, and others. Resolutions were passed after an all-day session providing for a rehabilitation program in the seven states affected, according to which a health unit would be established in each county, consisting of a full-time health officer, sanitary inspector, public health nurse and office assistants, and a field training station in the northern part of Louisiana. The program would be financed by the state, the county, and the Rockefeller Foundation, and the Red Cross when necessary, with the understanding that the parish will take over the expenses gradually and as soon as possible. During the afternoon, the conference went aboard the tug *Sampson* to go down the river to Caernarvon to view the extent of the flood.

MASSACHUSETTS

State Medical Election.—At the annual meeting of the Massachusetts Medical Society, June 6-8, Boston, Dr. John M. Birnie, Springfield, was elected president; Dr. Thomas J. O'Brien, Boston, vice president; Dr. Walter L. Burrage, Brookline, secretary, reelected; Dr. Arthur K. Stone, Brookline, treasurer, and Dr. Walter B. Cannon, Cambridge, orator.

Boston Floating Hospital Burned.—While undergoing the annual overhauling at the dock, the Boston Floating Hospital was destroyed by fire, June 1, at a loss of about $150,000. There were no patients aboard, and the eight men in charge of the work escaped injury. The Boston Floating Hospital has been in service for several years carrying thousands of tenement children down the harbor in summer on fresh air cruises.

Harvard Declines Eugenic Legacy.—Harvard University has declined the bequest of the late Dr. James Ewing Mears of Philadelphia of about $60,000 for establishing a course in eugenics. Dr. Mears's will provided for a trust fund, the income of which was to be paid to his sister during her life, and then to be turned over to Harvard College. It was announced, May 7, that the university had voted to decline the bequest, the reason reported given being in part that Harvard College did not deem it right to pledge itself to teach somewhat permanently that the treatment of defective and criminal classes by surgical procedure was a sound doctrine.

MICHIGAN

Smallpox Increases.—During the first twenty-four days of May, 151 cases of smallpox were reported to the state health department. The state health officer is reported to have said that each day witnesses smallpox reported from communities which previously had escaped. An appeal was made to institute, immediately, a vaccination campaign among all persons who had not been successfully vaccinated within the last five years.

Society News.—Mr. H. M. Nimmo, editor of the Detroit *Saturday Night*, was the principal speaker at the joint meeting of the Wayne County Medical Society and the Alumni Association of the Detroit College of Medicine and Surgery, June 14.——Dr. Guy L. Kiefer, state commissioner of health, recently addressed the Alpena County Medical Society and physicians from surrounding towns, and gave a public address at Alpena on "Matters Pertaining to Individual and Community Health"; in the evening he addressed the physicians at a dinner on "Acute Infectious Diseases, Especially Scarlet Fever and Its Prevention and Treatment by the Use of Serum."——Dr. Don M. Campbell, Detroit, addressed the St. Clair County Medical Society, Port Huron, recently on "Otitis Media, Mastoid Infection and Complications Thereof."——Dr. Victor C. Vaughan has been elected an honorary member of the Washtenaw County Medical Society.——The Michigan Trudeau Society met jointly with the Genesee County Medical Society, Flint, May 11; Dr. Eugene B. Pierce, Flint, gave a clinic on "Bronchiectasis in Children"; Dr. C. E. Bradley, Ann Arbor, and Dr. George J. Curry, Flint, gave a clinic on bone and joint tuberculosis; Dr. Max Pinner, Northville, gave a demonstration of exudative and productive tuberculosis, and Dr. James B. Amberson, Jr., Detroit, spoke on "Roentgen-Ray Examination of the Chest." At the dinner, Dr. Clarence L. Hyde, East Akron, Ohio, spoke on "Light Treatment in Surgical Tuberculosis," and Dr. Maurice Lewison, Chicago, "Some Mistakes in the Diagnosis of Pulmonary Tuberculosis."——The Kent County Medical Society held a joint meeting with the Holmes Dental Club of Grand Rapids, recently, the principal speaker being Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minn., whose subject was "Further Studies on Focal Infection and Elective Localization"; more than 200 members attended this meeting.

MISSISSIPPI

Personal.—Dr. May F. Jones has resigned her position at the Mississippi State Sanatorium on account of ill health, and will return to her home in West Point, Va.; Dr. Jones is said to be the first woman to take the state board medical examination in Mississippi. Since 1900, Dr. Jones has been engaged in service for the state of Mississippi at the State Woman's College, Columbus, the State Teachers' College, Hattiesburg, and the Mississippi State Sanatorium. Dr. Jesse L. Roark, Water Valley, will take over the duties formerly performed by Dr. Jones.——Drs. Edwin E. Benoist, Natchez, Eugene S. Bramlett, Oxford, and Ernest L. Posey, Jackson, were elected vice presidents of the Mississippi State Medical Association at the annual meeting at Jackson.

MISSOURI

Society News—Auxiliary Wants an Icebox.—The woman's auxiliary of the St. Louis Medical Society needs an icebox for their kitchen. Any member of the society who is replacing an old style icebox for a new type is requested to donate it to the auxiliary, whose kitchen, presumably, is in the beautiful building which the St. Louis Medical Society dedicated a few months ago. At the meeting of the society, June 7, medals and awards of merit for scientific achievement were presented to the following members: Drs. Evarts A. Graham, Warren H. Cole, Glover H. Copher and Sherwood Moore. Dr. Roland Hill addressed the meeting on "Congenital Pyloric Stenosis."

Horton's License Revoked at Last.—The state board of health revoked the license to practice medicine in Missouri of Dr. Ray B. Horton, of Purdy and Kansas City, May 27, after having found him guilty of fraudulently misrepresenting his educational qualifications. This case has been before the board for about two years, various legal maneuvers having been resorted to to evade trial. Horton was one of about sixty physicians cited in 1925 as the result of disclosures in diploma mill investigations to show cause why their licenses should not be revoked. When Horton was licensed in 1923, it appears that he presented credentials to the board indicating that he had completed a four year high school course, three years of study at the St. Louis College of Physicians and Surgeons, and one year at the Kansas City College of Medicine and Surgery. It was shown at the trial, it is reported, that during two of the four years he claimed to have attended high school, he was attending the Kansas City Veterinary College and that the superintendent of the Purdy high school at the time, Leslie K. Grimes, testified that the signature on the high school diploma was not his. Furthermore, during the time that Horton, according to his credentials, was attending the St. Louis College of Physicians and Surgeons, he was practicing as a veterinarian, as shown by advertisements in newspapers. Three witnesses testified at the hearing of the board that Horton had solicited money from them in exchange for his alleged influence with the old state board of health of which Dr. Cortez F. Enloe was secretary. One witness is reported to have said that he gave Horton $1,000 in cash, then took the state board examination and failed. Another witness testified that he gave Horton $500, and then failed to get an examination. The third testified that he gave Horton $500, mostly in checks, photostatic copies of which were submitted as evidence. An interesting feature of Horton's effort to obtain degrees was reported to these headquarters to the effect that pressure was brought to bear on the University of Budapest to grant him a diploma, although he was unable to pass the examination. The reports indicate that the university was led to believe that unless a diploma was granted to Horton, Hungarian physicians desiring to practice in the United States would be prevented from doing so, and that the threat was made by Horton that financial support to the university from the Rockefeller Foundation would be withdrawn if a diploma was not issued—a claim which, of course, had no basis in fact. If these statements are true, the University of Budapest was deceived. Horton's case is an illustration of the difficulty that may arise in getting rid of an improperly qualified practitioner once he has been licensed, and demonstrates the care that should be taken by licensing boards in scrutinizing the credentials of candidates.

NEW JERSEY

Society News.—Dr. Henry H. Ritter, New York, addressed the Hudson County Medical Society, May 3, on "Treatment of Certain Ambulatory Traumatisms."——Dr. Barton C. Hirst, Philadelphia, addressed the Mercer County Medical Society, May 11, on "Modern Methods of Diagnosis in the Treatment of Obstetric Conditions."——At the public meeting of the Academy of Medicine of Northern New Jersey, Newark, March 16, Elmer E. Brown, LL.D, chancellor, New York University, lectured on "The Scientist and Artist."

Dr. Dickinson Honored.—About 300 friends of Dr. Gordon K. Dickinson, Jersey City, attended a dinner in his honor at the Hotel Pennsylvania, New York, April 2, to celebrate his completion of fifty years in the active practice of medicine. At the conclusion of the dinner, a beautiful bronze figure, "The Life Saver," was presented to Dr. Dickinson by the Hudson County Medical Society as a token of esteem. Dr. Berthold S. Pollak was toastmaster, and among the speakers were Drs. Charles Gordon Heyd, John O. Polak and Judge Robert L. Cary. Dr. Dickinson established the first tuberculosis clinic in New Jersey; he was chairman of the committee that developed the city hospital in Jersey City, consulting surgeon to Christ's Hospital, and in 1919 was president of the Medical Society of New Jersey. He has been engaged in many other scientific and civic activities of the community.

NEW YORK

Memorial to Dr. MacDonald.—During the fifty-fourth annual meeting of the Association of the Alumni of the Albany Medical College, Albany, June 1, the Dr. Willis G. MacDonald Memorial was unveiled. Dr. MacDonald was formerly professor of abdominal and clinical surgery at Albany Medical College, and shortly after his death a fund of about $18,000 to construct a physiologic laboratory in the college was raised. The fund, however, not being sufficient to build the laboratory was turned over to the college, and a part of the new building which was dedicated, June 13, is to be known as the MacDonald Memorial.

Hospital News.—About 250 delegates attended the third annual conference of the New York State Hospital Association at Syracuse, recently, at which time Col. Louis C. Trimble, superintendent, New York Post-Graduate Medical School and Hospital, assumed the presidency of the association.——A group of Long Island City physicians has organized the Boulevard Sanatorium, and has filed plans for the erection of a three story, fire-proof, private hospital of about fifty beds for medical, surgical and obstetric patients at the southeast corner of Jamaica and Sixteenth avenues. There will be continuous service maintained in all departments with resident physicians in attendance, although patients will be treated by their own private physicians and will have the benefit of the consulting staff. The hospital will be nonsectarian.

Liquor Licenses Revoked.—The district prohibition administrator recently revoked the liquor licenses of the following for the reasons indicated:

Dr. Forrest Hayes, Jr., Flushing, did not in good faith issue twenty-two prescriptions for intoxicating liquor as a medicine, in that after careful physical examination of his patients he did not believe the use of such liquor as a medicine by such persons was necessary and would afford relief to them.

Dr. Hirsch L. Messman, Brooklyn, record Form 1402 and book of prescription blanks and stubs not available for inspection. Did not keep a record of prescriptions in Form 1402 prior to March 15, 1927. On inspection claimed book of prescriptions, blanks and stubs was lost or stolen and he had not then and has not since notified this office of the loss of said book. False records in Form 1402.

Dr. Joseph S. Amster, New Hampton, issued prescriptions without a careful physical examination, and not believing that the liquor was to be used as a medicine.

Dr. Ransom S. Robertson, Brooklyn, unlawfully issued prescriptions for liquor and made false entries thereon. Failed to issue prescriptions in order of the serial blank numbers. Failed to enter on prescription in duplicate in own handwriting all the data called for on Form 1403.

New York City

Hospital News.—The Jewish Memorial Hospital in the Bronx has created departments of cardiology, basal metabolism and plastic surgery, and the board of trustees will entertain applications for associates in these departments.——The New York Hospital will receive nearly 10 per cent of the residue of the estate of the late Payne Whitney; this legacy, it is reported, approximates $10,000,000.——The Jewish Mental Health Society has secured a tract of 55 acres at Hastings-on-the-Hudson as a site for a hospital for curable mental diseases, the initial capacity of which will be twenty-five beds.

Warning Against Bathing in Certain Bays.—The city health commissioner issued a warning, June 1, it is reported, against bathing in Sheepshead, Pelham and Jamaica bays and in the East, North and Harlem rivers on account of the pollution of those waters by sewage and industrial waste. The health department has conducted a survey of the waters recently, and the warning was based partly on the results of finding evidence of heavy pollution. The waters at Coney Island, Rockaway, Staten Island and Long Beach beaches are still considered safe for bathing purposes. Efforts are being made to make the waters about the city suitable for bathing, but success depends in large part on the cooperation of the people in strictly observing the sanitary laws.

Drs. Hess and Rous Awarded Medals.—The John Scott Bronze medal of the Franklin Institute of Philadelphia and $1,000 in funds were awarded to Dr. Alfred F. Hess, clinical professor of children's diseases, University and Bellevue Hospital Medical College, June 2, according to the New York *Medical Week*, for his studies on the "operative influence of light on rickets and on the remarkable effects produced by the ultraviolet irradiation not only of the living animal, but also on various foods, showing in the latter instance that the vitamin value in these substances could thus be increased." Dr. Francis Peyton Rous, pathologist, Rockefeller Institute for Medical Research, was designated for his invention of devices and the development of a filtration technic for separating from tumor cells a substance producing sarcoma in fowls.

Personal.—Dr. Charles Rosenheck has been appointed neurologist to the Midtown Hospital, New York.——Dr. Henry Dawson Furniss has resigned as professor of gynecology at New York Post-Graduate Medical School and Hospital, and has been appointed consulting gynecologist to that institution.——Dr. Alexis Carrel sailed, June 4, for France for his annual outing on his estate.——Dr. Simon Flexner of the Rockefeller Institute for Medical Research was awarded the lectureship of the Association of American Physicians at its annual meeting, Atlantic City, May 4.——Capt. John W. Cleave, Medical Corps, U. S. Army, now on duty at Governors Island, has been ordered to Honolulu for duty and will sail about June 30.——Dr. Edwin C. Chamberlain has resigned from the New York office of the U. S. Veterans' Bureau after about seven years' service.

Testimonial Dinner to Dr. Guthrie.—A group of about forty-five lay and professional friends gave a testimonial dinner in New York, June 14, to Dr. Clyde G. Guthrie, who recently resigned the medical directorship of the Lawrenceville School, Lawrenceville, N. J., and is about to locate in Cincinnati. Among those present were Drs. Lewellys F. Barker, John M. T. Finney, and Hugh H. Young, all of Johns Hopkins University Medical Department, Baltimore; Mr. F. Highlands Burns, president, Maryland Casualty Company, and about fifteen other Baltimoreans; Drs. Walter W. Palmer, Haven Emerson, Alphonse R. Dochez, William Darrach and Robert L. Levy, of Columbia University; Dr. Lewis Conner of Cornell; Dr. Wade H. Brown, Rockefeller Institute; Drs. Thomas Grier Miller, Alexander Randall, O. H. Perry Pepper, all of the University of Pennsylvania School of Medicine; Drs. Kenneth Blackfan and William L. Moss of the Medical School of Harvard University; Dr. Evans of Pittsburgh; Dr. Frank D. Conroy of Cincinnati; Mr. Thatcher M. Brown of Brown Brothers, New York; Judge Bodine of the U. S. Court, Trenton, N. J.; Mr. Frank Reid and Mr. H. M. Reid of New York, and Mr. Henry Young and Mr. C. H. Fetter of Trenton.

NORTH CAROLINA

Personal.—Dr. Wilbur A. McPhaul has been reelected city health officer of Charlotte, it is reported, at an increase of salary.——Dr. James M. Parrott, Kinston, has been appointed a member of the board of directors of the State Industrial

Farm Colony, which was authorized by the last legislature. ——Dr. Carey L. Harrington, Greenville, has taken up the duties of county physician of Durham County.

Babies' Hospital Destroyed.—The Babies' Hospital at Wrightsville Beach near Wilmington was completely destroyed by fire, May 28, at a loss of about $40,000; no lives were lost. Plans have been made for the immediate construction of a larger and fire-proof babies' hospital, and Dr. James B. Sidbury, head of the former hospital corporation, has offered to donate the site to a new corporation which, if accepted, would make it more of a community institution than a private hospital.

Society News.—About 125 physicians attended the Tenth District Association meeting at Marion, June 1, under the presidency of Dr. Charles Z. Candler, Sylva, who gave an address on "The Power of Organized Medicine." The president and secretary of the state medical society, Drs. John T. Burrus, High Point, and Lewis B. McBrayer, Southern Pines, and Dr. Charles O'H. Laughinghouse, Raleigh, secretary of the board of health, were present. Dr. Joshua F. Abel, Waynesville, has been appointed a councilor of the Tenth District to succeed the late Dr. Arthur T. Pritchard.——Twenty students completed the two year course in medicine at Wake Forest College, and received certificates to that effect at the commencement, June 2. The final two years of study are to be taken elsewhere.

NORTH DAKOTA

State Medical Election.—Dr. Thomas Mulligan, Grand Forks, was installed as president of the North Dakota State Medical Association at the meeting, May 31-June 2, Grand Forks; Dr. William F. Sihler, Devils Lake, was made president elect; Drs. John Crawford, New Rockford, and Andrew Carr, Sr Minot, vice presidents; Dr. John G. Lamont, San Haven, secretary, and Dr. William W. Wood, Jamestown, treasurer. The *Journal-Lancet* was continued as the official organ of the association, and the next annual meeting will be at Devils Lake. The registration at the Grand Forks meeting was 172. The speakers were Dr. Arthur Steindler, State University of Iowa College of Medicine, Iowa City, whose subject was "Arthopathies or Charcot Joints"; Dr. Frank E. Burch, University of Minnesota Medical School, Minneapolis, "Ocular Manifestations of Diabetes"; Dr. Frank L. Jennings, Oak Terrace, Minn., "Treatment of Pulmonary Tuberculosis"; Dr. Frederick C. Rhodda, University of Minnesota Medical School, "Prevention of Acute Contagious Diseases in Children." Drs. C. S. McVicar and William C. MacCarthy, both of the Mayo Clinic, Rochester, Minn., gave a symposium on "Diagnosis of Gastric and Duodenal Disease"; Dr Wallace H. Cole's subject was "Fractures" and Drs. William Boyd and Edward W. Montgomery of the University of Manitoba Faculty of Medicine, "Pathology and Treatment of the Anemias"; Dr. Harley E. French, dean, University of North Dakota School of Medicine, "Demonstration of Epiphyseal Lines," and Dr Edgar A. Pray, Valley City, "Intercostal Neuralgia." Dr. Paul D. Mossman, U. S. Army Medical Corps, gave a clinic on "Trachoma." Dr. N. Oliver Ramstad, Bismarck, presided at the banquet, June 2.

OHIO

Toledo Academy Establishes Endowment Fund.—The Toledo Academy of Medicine has established a $300,000 endowment fund for medical research, following the insurance plan. Members will take out policies, naming the endowment fund of the academy of medicine as beneficiaries. The fund will be augmented also by gifts during life and by bequests by will. It is expected that more than 300 policies will be taken out among the 400 members; eight were taken out on the first day the plan was in force. The endowment fund committee, comprising the trustees and president of the academy, will make all contracts and direct the expenditure of all funds in accordance with certain principles set forth in the plan. The purpose of the fund is to encourage investigation in the nature and cause of disease and the methods of prevention and treatment, and to disseminate medical knowledge for the protection of the public health. The power of the endowment fund committee may extend to the building, purchasing, equipping and maintaining of laboratories or other buildings; to owning land for breeding plants and animals; to appointing committees of experts to direct research; to cooperating with other associations engaged in similar work, and to maintaining museums. In general, the committee is empowered to perform all things necessary for the promotion of the objects of the fund. Only the income will be used, the principal being kept intact. The original suggestion for establishing an endowment fund was made by Dr. James A. Duncan at the annual meeting in January; it was accomplished in May. Dr. Duncan is head of the endowment committee.

PENNSYLVANIA

Society News.—The Tri-County Medical Society (Lebanon, Dauphin, Lancaster) will hold its annual meeting at the Colonial Country Club, Harrisburg, June 22; there will be a luncheon, business meeting, golf and cards, and the annual dinner in the evening.——Dr. Thomas D. Mills addressed the Harrisburg Medical Club, May 20, on "High Blood Pressure and the Patient"; the club's summer picnic will be held at Taneytown, Md., July 1.——Dr. William E. Wright addressed the Dauphin County Medical Society, Harrisburg, May 3, on "Clinical Manifestations on Encephalitis Lethargica."

Award of Fellowships.—The provost of the University of Pennsylvania announced, June 5, the award of fellowships in neuropsychiatry established by the Commonwealth Fund in the graduate school of medicine to Drs. Bernard J. Alpers, Philadelphia; Forrest N. Anderson, Lawrence, Kan.; William George Ferguson, Ann Arbor, Mich.; Alberta L. Jenkins, Philadelphia; Paul E. Kubitschek, Philadelphia; Norvelle C. Lamar, Philadelphia; Gerald H. J. Pearson, Ottawa, Ont., and Raymond W. Waggoner, Philadelphia. The following fellowships were also awarded: Frederick W. Sunderman, Robert M. Givin fellowships in research medicine; John R. Paul, Robert Robinson Porter fellowships in research medicine; Thomas G. Miller, Henrietta Heckscher memorial fellowship in medical research; William Blair Mosser, Bennett fellowship in surgery; Verne G. Burden, F. M. Kirby fellowship in surgical physiology; Selling Brill, Hunter fellowship in surgery; Lewis Kraeer Ferguson, Agnew fellowship in surgery; Richard A. Kern, Lewis Godey fellowship in medicine, and Edward J. Ryan, J. William White fellowship in urology.

Philadelphia

Fund for Professorship of Therapeutics.—The will of the late Dr. Milton B. Hartzell, recently admitted to probate, showed a bequest of $100,000, it was announced, June 6, to the University of Pennsylvania to establish the Milton Bixler Hartzell professorship of therapeutics. Dr. Hartzell, formerly professor of dermatology at the university and consultant of the city department of health, died in April.

Commencement at Jefferson.—The one hundred and second commencement of Jefferson Medical College was held in the Academy of Music, June 3. There were 138 graduates representing thirty-two states and foreign countries; fifty-one members of the class were commissioned as first lieutenants of the army medical officers reserve corps, and special awards were made to twenty-two. The honorary degree of doctor of science was conferred on Dr. Francis X. Dercum, emeritus professor of nervous and mental diseases, and Dr. Fordyce Barker St. John, professor of surgery, Columbia University College of Physicians and Surgeons, New York, who delivered the commencement address. The president of the board of trustees, Alba B. Johnson, conferred the degrees, and the dean, Dr. Ross V. Patterson, awarded the prizes; Major Frederick H. Mills presented the army commissions. At the annual dinner of the alumni association of Jefferson the previous day, the class of 1902 presented an oil portrait of Dr. John Chalmers Da Costa to the school. Dr. Da Costa has been on the faculty for forty years.

RHODE ISLAND

Personal.—Dr. Edward S. Brackett has been appointed chief of staff of the Providence Lying-In Hospital; Miss Edwina Porter, superintendent of nurses of the hospital, has resigned after twenty-three years of service, ten of which were as superintendent of nurses.——Dr. Isaac Gerber, Providence, has been appointed visiting radiologist to the Pondville Hospital, which is to be opened by the governor of Massachusetts, June 21, at Norfolk, for the treatment of cancer.

State Medical Election.—The annual meeting of the Rhode Island Medical Society was held in Providence, June 2, under the presidency of Dr. Herbert G. Partridge. The anniversary chairman at the annual dinner in the Biltmore Hotel was Dr. Lucius C. Kingman, Providence, and the speakers were Dr. James J. Walsh, New York, and Prof. George P. Baker of Yale University Among the scientific papers presented were "The Ketogenic Diet in the Treatment of Epilepsy in Children" Dr Fritz B Talbot, Boston, "Observations on Blood Pressure," Dr William E Preble, Boston, "Injuries of Bones and Joints in the Upper Extremity" Dr Thomas Turner Thomas, Philadelphia "What the Mind Does to the Body," Dr James J Walsh New York "Prenatal Problems," Dr Paul Appleton, "Hyperesthetic Rhinitis," Dr Francis B Sargent, and "Dentistry as the Medical Profession Sees It" Ernest S Calder, D D S, all of Providence Dr Norman MacLeod, Newport, was elected president at this meeting, Drs Arthur H Harrington, Saylesville, and Frank T Fulton, Providence, vice presidents, Dr Jesse Mowry, Providence, treasurer, and Dr James W Leech, Providence secretary The next meeting will be held in Providence, June 7, 1928 The subject of the Fisk Fund prize essay for the coming year will be "Epidemic Encephalitis"

TEXAS

University News—The east wing of the main medical college building at Galveston is being remodeled to provide space for a larger number of students and to improve the facilities for teaching Forty-six graduates of the school were awarded diplomas at the commencement exercises, May 31

Bank President Resigns to Practice Medicine—Dr Hatch W Cummings has retired as president of the Planters' and Merchants State Bank at Hearne, it is reported in order to devote more time to the practice of medicine and to his duties as president of the state board of medical examiners Dr Cummings is a past president of the Texas State Medical Association, he has served as president of the bank since 1910

VERMONT

Meeting of Health Officers—Health officers from all parts of the state met at Burlington, June 2-3 in the College of Medicine Building for the annual conference Among others, Dr Edward J Rogers spoke on Control of Water Supplies" and Tuberculosis Work in Vermont", Dr Charles F Dalton, Prevention and Control of Communicable Diseases Dr Charles F Whitney, "Health Officers' Use of the Laboratory", Dr Fred S Kent, "Venereal Diseases", Dr William G Ricker, "School Houses and School Children Dr Clarence H Burr, "The Problem of Nuisances," and Dr John [illegible] Gifford, Relation of the Health Officer to the Physicia[illegible]

WYOMING

Hospital News.—A new $125,000 hospital f[illegible] tu[illegible] patients has been completed at Basin

Personal.—Dr Thomas E Marshall [illegible] an [illegible] been appointed county health officer for [illegible] years to succeed Dr Edwin E Whedon [illegible] C Nelson Cheyenne, has been appointed h[illegible]cer of Laramie County to succeed Dr John H C[illegible]—Dr Louis A Williams, Laramie, has been appointed health officer of Albany County to succeed [illegible] Richard M Leake—Dr Victor A Mokler Th[illegible]opolis has been named state health officer for Hot Spr[illegible] County—Dr Maurice J Goldberg, Kemmerer, has b[illegible]ted health officer of Lincoln County to succeed Dr [illegible] R Marquis, Kemmerer

State Medical Meeting—The twenty fifth annual meeting of the Wyoming State Medical Society will be at Cheyenne, June 27 29, with headquarters in the Plains Hotel and under the presidency of Dr Vincent J Keating of Sheridan The meeting will be held in the Masonic Temple at Nineteenth and Capitol avenues where, Monday afternoon, among others Dr Jabez N Jackson, Kansas City, President of the American Medical Association, will give an address The house of delegates will have its first meeting, Monday afternoon followed by a smoker in the evening, Tuesday morning will be devoted to clinics, and Tuesday afternoon and Wednesday to papers and discussions Prof Charles W M Poynter of the University of Nebraska College of Medicine will speak on "Routes of Extension of Peritoneal Infection". Marcus O Shivers, Colorado Springs, "Problems of Goiter", Frederick L Beck, Cheyenne, "Sinus Problems", Water W Yates, Casper "Squint," and Archie P Kimball, Casper "Diagnosis and Treatment of Gastric and Duodenal Ulcers" Among other speakers will be Drs Arthur T McCormack, Louisville, Ky., Harold Gifford, Omaha, Albert R Mitchell Lincoln Neb, George P Johnston, Cheyenne Dr Edson L Bridges of the University of Nebraska College of Medicine will conduct a medical clinic Entertainment, as the secretary says, truly western in style, will be provided for the members and their wives One of the features will be a banquet Tuesday evening with dancing and bridge

GENERAL

American Board of Otolaryngology—At the examination of the American Board of Otolaryngology, held, May 16-17, Washington, D C, 142 men were examined, 119 of whom passed and twenty-three failed, at the examination held in Spokane, Wash, June 4, forty-six passed and six failed The next examination will be in Detroit, September 12 Applications to take the examination should be sent to Dr Hanau W Loeb, secretary, 1402 South Grand Boulevard, St Louis, Mo

Centenary of Journal Next Year.—When the former owners of the *Boston Medical and Surgical Journal* relinquished control, they incorporated the condition that the journal complete its one hundredth anniversary under its present name, that anniversary will occur next year The present management is considering changing the name of the journal then to the *New England Journal of Medicine*, and making it the official journal of the various New England states medical societies

Wild Rats and Food Poisoning.—Rats gathered at various places in San Francisco have been studied by the Hooper Foundation for Medical Research at the University of California in cooperation with the U S Public Health Service, to determine whether they are capable of transmitting bacterial disease Among 775 rats examined, fifty-eight were found infected with bacterial diseases which could be transmitted, and about 2 per cent of them carried highly virulent bacteria in their intestinal tract and were capable of infecting food by their droppings This study was aside from that of rat plague, and if the data presented pictures conditions as they are, the danger of food poisoning from rats is an important problem, particularly so in the cities in which rat eradication work is not carried on In another investigation made in Oakland by the Hooper Foundation on methods of preventing food poisoning, it was discovered there are four rat diseases transmitted by rodents in that city hem[illegible] a septicemia, plague, rat typhoid and pseudotub[illegible]

Study of Mosaic Diseases of Plants—An expedition has [illegible]turned from Africa with a collection of plants gathered lon[illegible] the west coast and in the Canary Islands by H H [illegible]Kinney, plant pathologist of the U S Department of Agriculture for a study of mosaic diseases of plants Plant scientists are engaged in developing crops that are immune to these diseases the most characteristic feature of which is the mosaic pattern caused by the green and yellow spotting of leaves of the diseased plants They cause serious losses in the potato, tomato sugar cane and tobacco, and, in some places corn and wheat crops The department of agriculture states that the virus is present in the juices of diseased plants and that it can be transmitted by insects in some cases by contact in others and by contamination of the soil in others The virus may remain active in dried specimens of certain plants for many years It cannot be seen by the best microscope now available, Mr McKinney, while on this trip, visited the laboratory of the medical research council in England to study the microscope developed by Barnard which, by means of ultraviolet rays, metallic reflectors and quartz lenses brings to view details of objects much smaller than those which are visible under the ordinary microscope

Children Under Institutional Care.—The U S Department of Commerce has issued a report which appears complete for the first time in a single volume with statistics on dependent, neglected and delinquent children in the United States as of 1923, the latest federal census of children in institutions and foster homes The report is arranged in three sections the last one dealing primarily with inmates of institutions for juvenile delinquents obtained from 145 institutions receiving children on court commitment It appears that there were, in 1923, 404,678 children in institutions or under supervision, the largest number being in institutions primarily for dependent children There is an increasing tendency, it is said, toward placing dependent children in foster homes However, 64 2 per cent of the children were found in institutions or receiving homes The number of juvenile delinquents under 18 years of age admitted to institutions in the first six months of 1923 was 12,710 Of these 2,445 were committed to jails and workhouses, and 945 to prisons and reformatories There has been a great change, the report adds, in the methods used in handling child delinquencies since 1910 A much smaller proportion is committed to penal institutions for adults, and a greater proportion to special institutions for juvenile delinquents, such as industrial and reform schools Only 54 per cent of the juvenile delinquents had been living under normal home conditions The number of children leaving institutions during the first six months of 1923 was 10,032, 73 4 per cent of whom were paroled Of those children who left penal institutions, only 20 per cent were paroled, and 46 per cent left because of expiration of sentence

Renewal of Registration Under Harrison Narcotic Act—Physicians who desire to continue to administer, dispense and prescribe narcotics must renew their registration under the Harrison Narcotic Act on or before June 30, paying the annual tax, $1 Failure to do so carries with it liability to criminal prosecution, and subjects the tardy registrant to a 25 per cent increase in the tax Registration in class IV carries with it the right to administer, dispense and prescribe narcotics generally, but does not entitle the registrant to dispense the so-called exempt preparations If the physician desires also to dispense such preparations he should register in class V as well as in class IV Registration in class V is not required of physicians who prescribe only the so called exempt preparations, but do not dispense them No extra tax is collectable for the dual registration If a physician limits his use of narcotics to the dispensing of so-called exempt preparations, he need register only in class V, in which case a tax of $1 must be paid The exempt narcotic preparations include those that do not contain more than 2 grains of opium, or more than one-fourth grain of morphine, or more than one-eighth grain of heroin, or more than 1 grain of codeine, or any salt, or derivative of any of them in 1 fluidounce, or, if a solid or semisolid preparation, in 1 avoirdupois ounce, or to liniments, ointments, or other preparations which are prepared for external use, only, except liniments, ointments and other preparations which contain cocaine or any of its salts or alpha or beta eucaine or any of their salts or any synthetic substitute for them These preparations in order to come within the exempt class must contain active medicinal drugs other than narcotics, and must be used as medicines and not for the purpose of evading the provisions of the act

Airplanes and Ships in Flood Relief Work—The old custom of relying on the army for stores in time of disaster was followed in the Mississippi flood When the overflow began, April 4, the governors of Mississippi and Louisiana requested tents from the army for refugees, the supply forwarded was augmented again, April 19, by 1,000 tents from the army storehouse at St Louis, by several hundred from the storehouses at Chicago and Fort McPherson, Georgia, and by 5,000 from the Philadelphia depot, 2,500 from Fort Omaha, three carloads of tent poles and pins from Philadelphia, and 204,000 tent pins from Columbus, Ohio The War Department placed at the disposal of the Red Cross, April 22, 1,435 wall tents, 16,207 pyramidal tents, 11 102 cots, more than 27,000 blankets, and five hospital tents The next day the Philadelphia depot sent 3,310 additional tents A few days later, army ranges and cooks were sent to the camps, and government boats and barges began rescuing the inhabitants By May 4 the army had seventeen airplanes photographing levees, locating marooned refugees, landing engineers, carrying messages and delivering emergent supplies The navy sent its first seaplane to the flooded area, April 17, later sending thirty-six other planes which performed excellent service under adverse flying conditions The navy also dispatched radio operators from Pensacola A radiogram sent from Bruin, Ark, for example, to the Red Cross headquarters at Memphis, stated that an epidemic had occurred among the refugees and that no medical aid was available Within an hour physicians had been transported to the camp and were administering to the sick The navy contributed the ships, *Allegheny* and *Bagaduce,* from Key West, which transported supplies and refugees on the river while smaller craft were detailed elsewhere The U S Treasury Department contributed every vessel of the coast guard fleet that could be used for rescue and relief in the flooded area, at the time of this report in the *Red Cross Courier,* the fleet comprised fifty power surf boats, twenty-two patrol boats, fourteen smaller craft, nine picket boats, four cutters and three harbor cutters, all manned by 603 officers and men The coast guard force won much praise for their work

Society News—At the annual meeting of the Associated Anesthetists of the United States and Canada, Washington, D C, May 16-17 Dr John H Evans, Buffalo, was made president, Dr Ralph M Waters, Madison, Wis, president-elect, Drs Wilmer Baker, New Orleans, Harold A Thompson, San Diego, Edward Leslie Burwell, New Rochelle, N Y, and John A Blezard, Edmonton, Canada, vice presidents, and Dr F H Hoeffer McMechan, Avon Lake, Ohio, secretary ——Dr Samuel W Welch, state health officer of Alabama, was elected president of the Conference of State and Provincial Health Authorities of North America at the recent annual meeting in Washington ——At the annual meeting of the American Neurological Association, May 26, Dr Charles L Dana, New York, was elected president, Drs Bernard Sachs New York, and Adolf Meyer, Baltimore, vice presidents, and Dr Henry A Riley New York, secretary-treasurer The next meeting will be held at Washington in May, 1928 ——At the annual meeting of the American Urological Society, Baltimore, May 23-25, Dr Richard F O Neil, Boston, became president of the society, Dr Homer G Hamer, Indianapolis, was made president-elect, and Dr Alexander Randall, Philadelphia, was elected secretary The next annual meeting will be in Chicago ——At the annual meeting of the American Climatological and Clinical Association, May 23 27, White Sulphur Springs, W Va, the following officers were elected for the ensuing year president, Dr Joseph H Pratt, Boston, vice presidents, Drs James S McLester, Birmingham, Ala, and George D Porter, Toronto, Ont, secretary-treasurer, Dr Arthur K Stone, Framingham Center, and recorder, Dr Cleveland Floyd, Boston The next meeting will be held at Washington, D C, May 1-2, 1928 ——Dr Sidney Yankauer, New York, was elected president of the American Bronchoscopic Society at the annual meeting, May 21, Atlantic City, N J, and Dr Louis H Clerf, Philadelphia, secretary ——Dr Joseph Brettauer, New York, was elected president of the American Gynecological Society at the annual meeting held in Hot Springs, Va, May 23-25, and Dr Floyd E Keene, Philadelphia, secretary The next meeting will be held at Washington, D C, April 30-May 2, 1928 ——Dr Adolf Meyer, Henry Phipps professor of psychiatry, Johns Hopkins University Medical Department, and director of the Phipps Psychiatric Clinic, Baltimore, was elected president of the American Psychiatric Association at the annual meeting in Cincinnati, June 3, and Dr Earl D Bond, Philadelphia, secretary The next meeting will be held at Minneapolis in 1928 ——Dr G Kirby Collier, Rochester, N Y, was elected president of the National Association for the Study of Epilepsy at the annual meeting held, May 31-June 1, at Cincinnati, and Dr Arthur L Shaw, Utica, N Y, secretary ——Dr D Bryson Delavan, New York, was elected president of the American Laryngological Association at the annual meeting, Atlantic City, May 23-25, and Dr George M Coates, Philadelphia, secretary ——The American Dietetic Association will hold its tenth annual meeting, October 17-19, at St Louis, with headquarters at the Hotel Statler

FOREIGN

World Population Conference—The first World Population Conference will be held in the Salle Centrale, Geneva, Switzerland, August 31-September 2, to consider the question of population growth from an international point of view Among the subjects to be discussed are population and the food supply, the biology of population growth, optimum density, the differential birth rate, migration and its control and fertility and sterility in relation to population Sir Bernard Mallet is chairman of the council of the conference, which includes about twenty-four scientists of France, England and Germany, Australia, Holland, Switzerland and the United States, the members from the United States being Drs William Whitridge Williams, Raymond Pearl, Wesley C Mitchell, Clarence C Little, Prof Henry P. Fairchild and Prof. Edward M East

International Congress of History of Medicine.—The Sixth International Congress of the History of Medicine will be held at the University of Leiden, Amsterdam, July 18 23, under the patronage of the Prince of the Netherlands, and with a number of government officials as honorary presidents There will be a visit to the exposition of physical instruments made by Dutch scientists in the eighteenth century, and moving picture illustrations of researches of Van Leeuwenhoek and Swammerdam, a visit to The Hague and Scheveningen, a reception by the Society of Physicians of The Hague, a visit to the medico-historic exposition of the Museum Suasso, and a reception by the mayors and municipalities of Amsterdam and Leiden Among the speakers will be Drs Crommelin and Nuijens Dr J G De Lint is president of the executive committee

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 28, 1927

New Coroner's Act Important Changes to Come into Force

A new coroner's act makes several important changes The appointment of county or borough coroners and of their deputies or assistant deputies is restricted to lawyers or physicians of not less than five years' standing The right of a coroner to hold an inquest without a jury is maintained, but the cases in which a coroner must summon a jury have been extended to include infanticide, death caused by an accident, poisoning or disease, notice of which is required to be given to a government department or inspector or under any act, death resulting from a street accident caused by the use of a vehicle, and where death has occurred in such circumstances that their continuance or recurrence is prejudicial to public health or safety The coroner may also summon a jury in other cases if he thinks it necessary He must still view the body, though the jury need not unless the coroner so directs or a majority of the jury desires to do so Where a coroner is informed, before the jury has given its verdict, that some person is charged with the murder, manslaughter or infanticide of the dead person he shall, in the absence of reason to the contrary *adjourn the inquest until* after the conclusion of the criminal proceedings and may discharge the jury If the coroner then resumes the adjourned inquest, no inquisition shall charge the accused person of any offense of which he could have been convicted on the indictment or contain any finding inconsistent with those proceedings Where a coroner's inquisition charges a person with murder manslaughter or infanticide the coroner has the same power as examining justices of committing that person for trial, but authority is given to the lord chancellor to make rules regulating the practice and procedure when persons are charged by a coroner's inquisition with those offenses An important provision of the act is the power given to a coroner in certain cases to direct a physician to hold a necropsy if he thinks that such examination may prove an inquest to be unnecessary The fees payable to a physician under the act are $7 50 for each day on which he is required to attend an inquest as a witness, $10 for making a necropsy, and for making that and attending to give evidence, $15 for the first day and $7 50 for each subsequent day of attendance

Shall We Become Supermen?

In the *Evening News* Sir Arthur Keith, with all his usual force, lucidity and charm discusses the fascinating question whether we shall become supermen He first refers to the ample evidence of improvement in body and brain in the advance of man from apedom But this advance has never continued along a straight, *unbroken line, everywhere there* are zigzags and breaks As far back as we can go we find the world inhabited by different breeds of men and in these breeds no two individuals are alike Such differences and the zigzaggedness of the course makes it difficult to say whether mankind as a whole is progressing unless one surveys *long* periods It was toward the close of the ice age that men and women of our own kind first appeared in Europe Many of the men were tall and large brained—as tall, strong, and well equipped in head and heart as any living race But not all were tall and big headed, many were the opposite, the women, in particular were short of stature The people of modern Europe are not superior to these early pioneers in strength of limb or innate capacity of mind Keith recently had an opportunity of examining the skulls and skeletons of men and women who abode in Ur of the Chaldees long before the time of Abraham The men were big-headed with robust faces, they were the founders of our earliest civilization—men of enterprise and erudition Their descendants are wandering Arabs of the desert today Five thousand years ago the *Egyptians were building pyramids*, in their governing and upper classes, as we know from examination of skulls, there were many fine men—men no whit behind the best we can show today, and better, Keith thinks, than can now be found in Egypt among their descendants We do not know much concerning the cranial capacities of the ancient Greeks, but it is difficult to believe that the population of modern Greece has their equal No one can survey collections of skulls that represent the upper classes of ancient Rome in her most prosperous periods without being impressed by the liberal lines on which nature had framed them Modern Italy would be hard pressed to show their like

One cannot study records of ancient Babylonia, Egypt, Greece and Rome without a note of alarm Civilization seized them and sooner or later left them exhausted And in these times civilization has spread into and seized the wide virgin field of western Europe, of which we form part Will the fire of civilization consume us also? In our conception of empire Keith finds our chief hope It gives scope for our energies There is no sign of weakening anywhere Our racial flag has been firmly planted on wide continental spaces, the United States Canada, South Africa, Australia, and New Zealand are held by men of the western European stock, British blood predominates Our race establishes itself in the world more and more firmly, its prospects continue to improve, we increase rapidly in numbers, but do we improve in quality? Babylonia, Egypt, Greece and Rome did not fail for lack of children, but for a dearth of children of the right kind Civilization exposes the ablest of her votaries to the temptation of luxury The basal and essential condition for racial progress is a healthy birth rate in every grade of the community As we raise our standard of living, the maintenance and education of children becomes more expensive, we become more and more tempted to spend on ourselves what should be sacrificed in raising another generation The most alarming circumstance Keith sees today is the steady rise in the cost of 'higher education The pursuit of wealth and the ambition to climb the social ladder, although they serve as driving powers in every form of civilization do not tend toward racial betterment Civilization is a winnowing process, and those who survive its ordeal are not our intellectuals and philosophers—our men of superior endowment—but the plain men imbued with the instincts of primitive humanity a zest for life and for children The right name for the tower of Babel is civilization, every attempt to build it has ended in the confusion of the builders Can we, by taking thought, avoid former errors? Keith thinks we may, but the fact remains that there were as highly endowed men and women in the cities of the plain *6,000 years* ago as *there* are in New York today

Another aspect of the problem of human progress is of surpassing interest Not many generations ago our forefathers were hunters and lived on what they could kill or gather Today we have the produce of the world at our disposal and most of us can afford to eat to repletion Earlier generations lived half naked in the open, we clothe our bodies and live in warm houses We are passing through a great experiment how will our bodies emerge from it? Disorders of digestion are rife appendicitis becomes alarmingly prevalent, our teeth tend to erupt in a disorderly fashion and are *prone* to disease, and we become more and more rabbit-mouthed In the inhabitants of England in former times, caries of the teeth and contractions of the palate hardly occurred until the eighteenth century and then they are found plentifully in the skulls. There is evidence of other physical changes. We cannot say that as a people we are growing stronger, taller or bigger brained. Our modern ways of living are having an effect on our constitution, but Keith sees no reason to fear these changes. As our knowledge of the human body increases we shall learn how to avoid them. Some think that man has reached the highest point of evolution and that he has become a fixed and stable type. But nothing can live and be stable; change may be exceedingly slow, but it is inevitable. Man cannot escape from this universal law; he must change, for better or for worse. In the world today we see changes proceeding apace; some races are dying out, others are taking their place. One would like to think that "every day, in every way" we are getting better and better. Our ideals are higher. Our opportunities of living life to the full continue to improve. But we cannot claim to be physically better or higher than the men who founded civilization 6,000 years ago. However, when we go back further and see man emerge from a form little higher than an ape and reach his present estate, the hope wells up that in some way we may yet circumvent the limitations of civilization and rise to the status of superhumanity.

Women Liberals Favor Birth Control

The question of birth control was discussed at the annual council meetings of the Women's National Liberal Federation. A motion in the name of Mrs. Spring Rice declared that a national policy on such matters as emigration and birth control was urgently required, and stated that "while emigration can be only a temporary cure for overpopulation and, by its process of selection, may be a danger to the country, scientific birth control provides a means of increasing the efficiency of the nation." Mrs. Spring Rice said that the time had come when liberalism should bring into its political thought two grave questions which had a profound effect on the population of the country. It was not for the good of the empire that we should send our best young men and women to the dominions. As to birth control, she wanted it to be associated not with the limitation of families so much as with the improvement of families. Lady Acland, seconding, said that the resolution was a call from the womanhood of the land to the nation to formulate a policy about the ever-present question of population. We were bringing down the death rate and were asking at the same time for a more responsible parenthood. There were persons who were shocked that mothers should be able to choose how many children should be brought into the world. We could leave that to the generation that looked on population as cannon fodder. There was no doubt that the great majority of married women did, in some form or other, practice birth control, but owing to lack of knowledge it was not the most rational form. Mrs. Walter Runciman moved as an amendment that "inasmuch as there is no general consensus of scientific opinion on the subject of birth control and the question has given rise to deep-rooted differences of opinion on social, moral and religious grounds, it is undesirable to include a pronouncement on the subject in the policy of this council." The amendment was defeated and the resolution adopted. The conference then adopted a resolution, moved by Lady Howarth and seconded by Mrs. N. Barclay, that information should be available to those who asked for it at the centers controlled by the ministry of health, where the physicians were in possession of the medical history of the mothers and knew to whom such information should be given, "by this means enabling the poorest members of the community to obtain information to which the wealthier classes already have access."

PARIS

(From Our Regular Correspondent)

May 18, 1927.

The Diagnosis of Tuberculosis

Professor Bard, following the congress held in Lyons, has published an outline of the question of diagnosis of pulmonary tuberculosis. Two contrary tendencies may be noted. Physicians for sanatoriums, insurance companies or military recruiting are bent on not letting any suspect escape who might benefit by early treatment or who might later develop the disease and reflect on their diagnostic skill. Therefore, many persons are declared suspects who are not tuberculous and never will be, or who are carriers of bacilli that will always remain latent France pays, every year, immense sums, in the form of pensions, to ex-service men declared "suspects" by examining boards but who are today in excellent health, having given only vague signs of pulmonary sclerosis on fluoroscopy. The pension law declares that a pension right once acquired shall be retained irrespective of later developments. The societies of pensioned soldiers now play an important political rôle in the parliamentary elections. On the other hand, physicians in hospitals and dispensaries, having had their attention directed to the large number of persons previously declared "suspected" who never develop tuberculosis, are now inclined to refuse to accept a diagnosis of tuberculosis except on explicit proof, which is frequently unobtainable. They hesitate to apply isolation, the loss of employment, and the consequent renunciation of future prospects, to all subjects officially recognized as tuberculous. Bard, in concluding, takes frankly the part of the latter.

The Hygienic Service and the Public Health Service in Morocco

The organization in Morocco of the hygienic service and of the public health service, in their present form, is of recent origin. In March, 1926, Dr. Colombani was appointed general director, with full power and a centralization of all the services in his hands. This concentration of authority in a single man is the principle that constitutes not only the newness but also the efficacy of Moroccan organization. Efforts are directed toward supplying medical aid for both Europeans and natives, toward the organization of general hygiene, prophylaxis on a large scale, and the hygienic education of Europeans and natives. There have been built five large European hospitals, nine regional hospitals for both Europeans and natives, 130 infirmaries for the natives, and maternity hospitals, some for Europeans and others for natives. Furthermore, a colonial medical service makes it possible to give to the colonists (even those living most remote from the centers) and to their families the necessary medical aid. The supervision of hygiene and the general prophylaxis of epidemic diseases is accomplished in the cities through the hygienic bureaus, of which there are at present eleven. The "*groupes sanitaires mobiles*" are the distinctive and original feature They not merely constitute a mobile dispensary for consultation, but on the outbreak of an epidemic, they can be enlarged to form an organization for prophylactic defense. Particular attention is paid to the prophylaxis of plague, typhoid, smallpox, syphilis, tuberculosis, trachoma and malaria. Antisyphilitic dispensaries have been established in all the important cities, and arsphenamine treatment is actively propagated among all groups of natives. In order that the native population may understand the importance of the measures imposed on them and the value of the care and treatment offered them, the physicians constituting the mobile sanitary groups all speak the language of the country and act as instructors. In addition, a Mussulman who has studied in France is employed to make the rounds of the cities and rural communities and to give talks on hygienic and health topics. Parallel with that, a publicity campaign is conducted with a view to instructing the European colonists.

The Sterilization of Drinking Water by Electricity

The sterilization of drinking water by electrical procedures is coming more and more into use in France and may become the predominant method, especially where waterfalls make cheap electric power available. The construction and maintenance of aqueducts from new sources of water located at long distances is becoming increasingly expensive. The region of Nice and the Riviéra is supplied today almost entirely with water thus sterilized, and many other cities are adopting the method. Avignon, which, formerly, after every high water on the Rhone, experienced an epidemic of typhoid, has introduced the system and there has not been a case of typhoid since that time. Dinard, a region of Bretagne in which infection has been common, and Soulac, on the coast of Gascony, have done the same. Lorient, a fishing port, after suffering several outbreaks of typhoid, is now sterilizing with ozone the waters of the Scorff and the Scave. Auray consumes the muddy and contaminated waters of the Tregurey river after being purified and clarified by means of ozone. Especially the cities frequented by French and foreign tourists have been the first to adopt the system, in order to prevent the spread of reports unfavorable to their business; also cities having large military garrisons, which, as is well known, constitute a favorable environment for epidemics. Brest, Toulon, Saint-Brieuc, Paramé, Saint-Servan, Dinan, Avranches, Angouléme, Cognac, Granville, Chatellerault, Laval, and many cities of the lower Seine, are now supplied exclusively with ozonized water, as a consequence of which their sanitary condition improved at once. From calculations made it appears that the cost of the process ranges, according to the place, between 1 and 2 centimes per cubic meter of water, and in some instances in which the sources of the electricity are near at hand and a proportionate low rate prevails the cost has been brought considerably below 1 centime per cubic meter. The city of Paris is studying the question of cost at present with a view to introducing the system if feasible.

BERLIN

(From Our Regular Correspondent)

May 21, 1927.

Congress of the German Society of Internal Medicine

The congress of the Deutsche Gesellschaft fur innere Medizin was held at Wiesbaden, April 25-28, 1927. The first day of the congress, which was presided over by Professor Naegeli of Zurich, was devoted to psychotherapy. The principal paper was presented by Gaupp of Tubingen. He emphasized in psychotherapy the value of the unity of the body and the psyche, and the significance of psychologic research for the field of medicine. Psychotherapy is an ancient mode of treatment. As a special science, however, which passes from intuition to conscious endeavor, it is new. Psychic impairment and disturbed bodily function may be in close mutual relation. The effects of pathologic psychic processes, which are often only accentuations of normal processes, on body and mind may be referred to as psychogenic. In a special state of consciousness such as hypnosis, the action of the psyche affects the body more deeply than does the will when consciousness is clear and unimpaired. For example, in a hypnotic state, symptoms the cause of which is not clear may be relieved if the patient recalls the events that produced them in the first instance. Hypnosis has been supplanted by the introduction of Freud's psychanalysis, in which the central idea is the conception of the effect on the waking ego of perceptions and feelings that have been banished, by an effort, from consciousness. At first Freud thought that in the sexual injuries of childhood he had discovered the sole cause of neuroses. Later, he laid the chief emphasis on an abnormal sexual constitution. The ideas associated with this conception (Oedipus complex, suppression, etc.) and the resolution and elimination of the complexes through the psychanalysis of perceptions of which the subject was previously unconscious are well known. The author called attention to the fact that the accentuation of sexual ideas (sexualism) has elements of danger for the patient. Some of Freud's pupils are departing from the teachings of the master. Jung amplifies the notion of the libido into the conception of the psychic productive power. Steckel varies the form of treatment and recommends what he terms a "*schnellanalyse,*" or quick analysis. Ludwig Frank and others have clung to the old method of "psychocatharsis." Alfred Adler, plainly under the influence of Hobbes and Nietzsche, develops the theory of the origin of neuroses through the conflict between a dominant will and an inferiority complex that is based on congenital or acquired organic defects. From such conflict there results for every neurotic the chief guiding motive of his life, and the neurosis becomes for the patient a mere escape symptom. Freud and Adler as well trace every neurosis back to early experiences in childhood. They both make the mistake of allowing themselves to make dogmatic generalizations on the basis of single observations, valuable though they may be. Experience teaches that the majority of neurotic patients cannot be cured by analysis and enlightenment alone. In addition to the analysis of the personality recourse may be had to "psychagogics," whereby the patient is led to set a worthwhile goal for himself in life. In that connection, the development of group consciousness is essential. The simpler forms of neurotic disorders can be improved or cured by various methods of suggestive treatment. Often, however, a cure is impossible, owing to inborn pathologic dispositions, so that a neurosis may be the relatively best escape from a sad but unavoidable life situation. Hypnosis has lost its significance because recurrences are frequent. The author gave a survey of the other forms of suggestive treatment, and discussed the injuries to which patients were exposed by wrong methods of psychotherapy. He explained also the demands made by psychanalysts with respect to the training of psychotherapists. Gaupp stated further that the observations of the recent war furnish evidence that not all neuroses are traceable to childhood experiences. As supplementary to the analysis of personality, he emphasizes the value of "therapeutic pedagogics" and insistance on ethical teachings; more particularly, the overcoming of selfishness. In closing, he raised the question as to whether psychotherapy was applicable to a group of persons, to certain strata of the population, or even to a whole people, and, in that connection, called attention to the deep effects that the psychic derangements of the war and the weakening of religious ties had had on the population. However, a detailed knowledge of the individual psyche constitutes the basis for a knowledge of the group, and it is very evidently the duty of the physician to minister, in all wisdom and kindness, to the needs and sufferings of individuals. (An almost complete reprint of Gaupp's paper will be found in the *Deutsche medizinische Wochenschrift* 53:807 [May 6] 1927.)

According to Fleischmann of Nassau, psychotherapy covers more than treatment by means of psychanalysis. The preconditions for psychotherapeutic intervention are a careful examination of the patient and certainty of diagnosis, which many psychotherapists make the mistake of regarding as of secondary importance. Psychotherapeutic methods may be divided into two distinct classes, the secret primitive unsystematic procedures and the systematic modes of operation; some are lacking a theoretical basis, as hypnosis, suggestion, "psychagogics" and "therapeutic pedagogics," while psychanalysis and Adler's *"individualpsychologie"* have a theoretical substratum. The successful results secured with psychanalysis are probably referable to their suggestive effect, for which reason it is recommended as a "rational anamnesis," which helps the patient to understand the connections in the development of his disorder and stimulates him to active cooperation in overcoming it. The dangers in the practical application of psychanalysis are associated with the facts that things of which the patient is blissfully unconscious are sometimes brought into the foreground of consciousness in such a manner as to work a positive injury to the patient and that the sexual factor often receives undue emphasis. Then, too, the interplay of emotions as between the physician and the patient has its dangers. The physician who applies psychanalytic treatment must remain conscious of the fact that in very few cases does he effect a causal cure. He can, however, if he retains a clear conception of a feasible objective, achieve good results in many cases of practical medicine and thus find psychotherapy a valuable aid in the treatment of bodily disease as well.

During the discussion that followed, Römheld (Hornegg o. N.) dealt with psychotherapy as applied to internal diseases. He employs a method that he has found useful in many cases. It consists in endeavoring to direct a patient's attention away from the organ or organs that are diseased to another organ that is not diseased.

(To be continued)

BUCHAREST

(From Our Regular Correspondent)

May 5, 1927.

Eight Hundred and Sixty-Six Abortions Performed by a Bessarabian Physician

The director of the state hospital in Kishenew, the capital of Bessarabia, was struck by the great number of women admitted to the gynecologic section of the hospital, with conditions pointing to preceding abortion. He asked the police to investigate, and the result was the revelation that apparently Dr. Stephan Bolinsky, a physician in Lapusna, has performed criminal abortion in a commercialistic manner. His house has been searched and secret records point to the implication that he performed criminal abortion in 866 instances. Almost all his instruments consisted of those necessary to the performance of abortion. In his office were many embryos kept in alcohol and in the cellar were found a great quantity of small bones which seem to have been derived from embryos. The physician, his midwife and his nurse have all been arrested. The disclosure has aroused surprise in medical circles since Dr. Bolinsky was known as a good gynecologist, who pursued his specialty in a scientific manner, having written many valuable articles on gynecologic subjects. He denies the crime imputed to him and states that the bones in the cellar are of dogs. The county court in Lapusna will try the case in June, and more than 200 witnesses and five medical experts have been summoned for the trial.

Bill Relating to Venereal Diseases

The Roumanian government has sent out a special committee to study the fight against venereal diseases in different nations of western Europe. The committee spent several weeks in Vienna, Berlin, Paris and London, and its experiences are embodied in a new bill. In drafting the bill an endeavor was made to copy the German system, which is most suitable for Roumanian conditions. According to the bill it is the right and duty of every infected person to have himself treated. His right to treatment he may realize in the dispensaries of the national sickness insurance organization. His duty to have himself treated may be enforced by law. He must be treated by a qualified physician, or if it is suspected that he has a venereal disease and that he is disseminating it, the local health magistrate may demand a medical certificate of his condition, or may subject him to an examination made by an official physician. Furthermore, a patient with venereal disease must be informed that he is suffering from a contagious malady, and to this end every physician is obliged to give an explanatory leaflet to all his patients who are commencing a course of antivenereal treatment. It was suggested also that cured patients should be given a leaflet instructing them how to protect themselves against a fresh infection. This system proved efficacious in Sweden. Treating patients by correspondence is forbidden. The bill prescribes punishment for those who knowingly have their syphilitic babies nursed by a healthy woman. The bill contains a paragraph according to which physicians are obliged to report to the nearest venereal station their patients who refuse to undergo treatment. In case of continued delinquency the station must report the patient to the health magistrate. The bill dropped compulsory notification of the names of patients with venereal disease. The opponents of reporting the names of patients argued that this would bear hardest on those who were willing to have themselves treated conscientiously, and would deter many patients from calling on physicians.

History of Public Health Administration in Roumania

At a recent meeting of the medical association Dr. N. N. Saveanu, late minister of health, gave a little sketch of the history of public health administration. He said that the first public health institutions were the cloisters. Some records, dating back to the sixteenth century, state that sufferers have sought relief for their bodily and mental disorders in the cloisters of the monks. This primitive arrangement was perfected at about the beginning of the nineteenth century. The real basis for public health organization was laid, however, as late as 1874, by the so-called Davila law. Under this the first public health law of Roumania, the physician is subordinate to the county prefect and city mayor. The appointment and dismissal of physicians at this time was the discretional right of the county and city councils. The new law of 1881, as a proof that it regarded the sanitation of rural districts as of equal importance with that of the city, transformed the old cloisters into hospitals and employed monks and nuns as nurses. The law of 1885 released physicians from local authority and enacted that they shall be appointed by the minister of internal affairs under royal decree.

With regard to the fact that the overwhelming majority of the Roumanian population are village dwellers, the government promoted the sanitation of rural districts by new laws in 1893, 1898 and 1906. In 1906, thirty-two village hospitals were erected and a new law was enacted that all hospitals should be managed by the state. All health districts were obliged to erect central hospitals. Nov. 4, 1923, a great step was taken in the progress of sanitation, the ministry of health being established.

The Obligation of Producing Medical License to Marriage

The provincial council in Zagreb, the capital of Croatia, a province of Jugoslavia, has passed a law which requires that every man who is to be married must be examined by a medical officer. The man must be of mature age and shall not suffer from tuberculosis, venereal disease, trachoma or malaria. No priest or clergyman is allowed to perform the ceremony for parties who fail to produce such certificates. In case a medical officer diagnoses a disease that may interfere with married life or may be detrimental to the offspring, he is obliged to call the attention of the parties to this fact and take up the matter with the provincial council. Both health officer and priest are responsible for observance of this law.

Marriages

Frank W. Milward, Jr, Cleveland Heights, Ohio, to Miss Norma Christine Koch of Lakewood, June 15.

Virgil Leroy Payne, Greenville, Miss, to Miss Ella Hunt Howell of Pine Bluff, Ark, April 19

Zeno Nicholas Korth, Rochester, Minn, to Miss Agnes Morton of Omaha, May 18.

Leo H Salvati, Westfield, N. J, to Miss Doris Lambrusken of Somerville, June 1

Louis Cohen to Miss Eleanor Speiser, both of Philadelphia, June 1

Deaths

Ralph Wentworth Jackson ⊕ Boston, Long Island College Hospital, Brooklyn, 1892, member and past president of the American Proctologic Society; for three years on the executive committee and chairman of the Section on Gastro-Enterology and Proctology of the American Medical Association, 1924-1925, on the staffs of the Fall River General Hospital and the Union Hospital, Fall River, St Luke's Hospital, New Bedford, Mass, and the Carney Hospital, Boston, aged 58, died, May 22, at the Garfield Memorial Hospital, Washington, D C, of acute dilatation of the heart

Charles Teackle Carter Buckner ⊕ Captain, M C, U S Army, Fairfield, Ohio, University of Maryland School of Medicine, Baltimore, 1899, commissioned a captain in 1920, served during the World War; aged 49, died, February 19, at Selma, Ala, of skull fracture received in an airplane crash

Robert William Eaton, Phoenix, Ariz ; Northwestern University Medical School, Chicago, 1915, member of the Arizona State Medical Association, served during the World War, on the staff of St Joseph's Hospital; aged 36; died, May 6, as the result of burns received in an explosion.

James Elmo Smith ⊕ Saint Jo, Texas, University of the South Medical Department, Sewanee, 1908, member of the Oklahoma State Medical Association, aged 43, died, in May, at a hospital in Gainesville, of injuries received in an automobile accident

James Hamilton Maxwell, Oklahoma City, Okla ; Memphis (Tenn) Hospital Medical College, 1901, University of Louisville School of Medicine, 1903 member of the Oklahoma State Medical Association, aged 53, died, May 5, of acute nephritis

Charles Cornelius Shope, Des Moines, Drake University College of Medicine, Des Moines, 1894 member of the Iowa State Medical Society; formerly a druggist; on the staff of the Lutheran Hospital, aged 61, died March 30, of cerebral hemorrhage.

Frederick Augustus Grazer, Sacramento, Calif , Cooper Medical College, San Francisco, 188[illegible], member of the California Medical Association for sixteen years pharmacist to the Sacramento Hospital, aged 70, died, recently, of pneumonia

Aaron Schloss, San Francisco, University of Pennsylvania School of Medicine, Philadelphia, 1883; member of the California Medical Association, aged 65, died, April 30, at his home in Berkeley Calif., of uremia

Thomas Hicks Pleasants ⊕ Lewistown, Mont ; Medical College of Virginia, Richmond, 1877; city health officer; past president of the Fergus County Medical Society; aged 70; died, May 16, of pneumonia

T. E. Pennington, Naylor, Ga ; Atlanta Medical College, 1886; member of the Medical Association of Georgia; aged 70; died, May 9, at a hospital in Valdosta, of cerebral hemorrhage

Horace Morton Leach, Rochdale, Mass ; Hospital College of Medicine, Louisville, Ky., 1876; member of the Massachusetts Medical Society; aged 83; died, May 11, of myocarditis.

William B. St. John, Bristol, Tenn.; Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, 1886, aged 61; died, May 12, of heart disease.

Paul Ralph Sigel, Detroit; Detroit College of Medicine and Surgery, 1913; aged 37; died, March 15, of cerebral hemorrhage and skull fracture received when he fell down stairs.

Lorenzo Miller Nickerson ⊕ Remsenburg, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1896; aged 57; died, May 21, of carcinoma of the bladder.

Nathaniel McClinton, Jensen, Fla.; Victoria University Medical Department, Toronto, Ont., Canada, 1865; aged 90; died, May 22, at Saginaw, Mich, of chronic myocarditis.

William Howard Gallagher, Boston; Harvard University Medical School, Boston, 1896; member of the Massachusetts Medical Society, aged 52; died, May 11, of myocarditis.

Louis W. Toles ⊕ Orlando, Fla.; Rush Medical College, Chicago, 1897; aged 64; died, May 4, at the Orange General Hospital, of uremia and chronic nephritis.

Adolph Jaenicke, Clinton, Iowa; University of Würzburg, Germany, 1879; member of the Iowa State Medical Society; aged 72, died, May 19, of angina pectoris.

Thomas J. MacFarlane, Brooklyn; Medical Department of Columbia College, New York, 1886; aged 61; was found dead in bed, May 20, of cerebral hemorrhage.

Luke Edward Bartley, Providence, R. I.; Medical Department of the University of the City of New York, 1891; aged 62, died, May 16, of heart disease.

Rose Kidd Beere, Washington, D. C.; Northwestern University Woman's Medical School, Chicago, 1892; aged 68; died, May 19, of chronic myocarditis.

Joseph Herbert Robison, Bradford, Pa.; University of Buffalo (N Y.) School of Medicine, 1895; aged 55; died, May 16, of carcinoma of the throat.

Simon Bothwell Fraser, New York; McGill University Faculty of Medicine, Montreal, Que., 1907; aged 47; died, May 19, of cerebral hemorrhage.

William T. Medling, Dyer, Tenn.; University of Nashville Medical Department, 1874; aged 77; died, March 28, of arteriosclerosis and myocarditis.

John William McKoan, Worcester, Mass.; Harvard University Medical School, Boston, 1894; aged 53; died, May 4, of acute dilatation of the heart.

Jennie Garrison Gkrist ⊕ Los Angeles; Keokuk (Iowa) Medical College, 1898 aged 57; died, May 5, at her home in Glendale, Calif., of carcinoma.

George W. Suddard, Hayti, S. D.; Bennett Medical College, Chicago 1906 aged 61; died, April 29, of injuries received in an automobile accident.

Benjamin F. Phillips, Baltimore; University of Maryland School of Medicine, Baltimore, 1878; aged 72; died, May 25, of heart disease

Alpheus W. Gregg, Kennett Square, Pa ; Hahnemann Medical College and Hospital of Philadelphia, 1889; aged 60; died, March 9.

James H. Chipman, Georgetown, Del.; Medico-Chirurgical College of Philadelphia, 1898; aged 48; died, May 9, at a local hospital

Moses E. McCray, New Albany, Kan.; American Medical College, St Louis, 1880; died, May 7, at a hospital in Kansas City, Mo

Reine Keelor Hartzell, Oakland, Calif.; Jefferson Medical College of Philadelphia, 1902; aged 47; died in May, at Los Angeles.

Alfred B. Hart ⊕ Owatonna, Minn.; University of Minnesota Medical School, Minneapolis, 1903; aged 58, died, May 10

Hubert A. Pinault, St. Joseph, Minn., Laval University Faculty of Medicine, Montreal, Que., 1883; aged 72; died, May 21.

Emil J. Merki, Chicago; University of Illinois College of Medicine, Chicago, 1902; aged 49; died, May 24, of Hodgkin's disease.

Frank T. Turner, White Hall, Md.; College of Physicians and Surgeons, Baltimore, 1879; aged 69; died, April 30.

Charles Clifton Wells, Darbun, Miss.; Memphis (Tenn.) Hospital Medical College, 1908; aged 46; died, May 8.

James N. Montgomery ⊕ Chicago; Missouri Medical College, St. Louis, 1875; aged 77; died, May 22, of myocarditis

Porter K. Dobyns, Franklin, Ind.; Medical College of Indiana, Indianapolis, 1879; aged 68; died recently.

Pleasant M. Hawkins, Arp, Texas (licensed, Texas, under the Act of 1907); aged 70; died, March 21.

The Propaganda for Reform

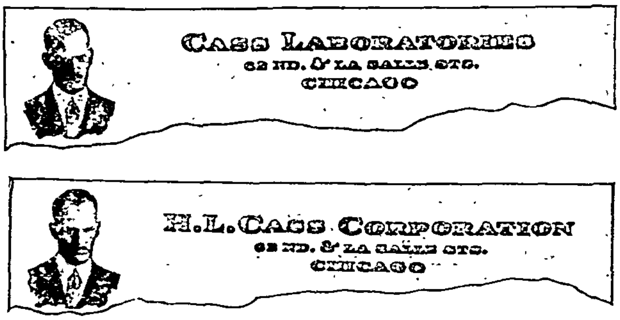
In This Department Appear Reports of The Journal's Bureau of Investigation, of the Council on Pharmacy and Chemistry and of the Association Laboratory, Together with Other General Material of an Informative Nature

THE "CASS TREATMENT" TRICKERY

In this department of The Journal, Jan. 15, 1927, under the title "Cass Treatment for Rheumatism," there was described a particularly bold piece of Chicago mail-order quackery, conducted under the name "Cass Laboratories." In this article it was shown that there was a close community of interest between this humbug and a fake "epilepsy cure," exploited under the trade names "Western Medical Association" and "Vernon Laboratories."

The article brought out the fact that the Cass Laboratories were not laboratories; that its alleged president, "Harvey L. Cass," who was featured throughout the advertising, did not exist but that the concern was run by one H. L. Cassel, in association with his brother-in-law, one Joseph V. Creevy.

In the Cass Laboratories' advertising, the mythical H. L. Cass was played up as a human interest element, his picture appearing on most of the stationery and other advertising paraphernalia. Cassel even went so far as to publish a photograph of three small children—"Tom, Bob and Dick"—said to be the children of H. L. Cass. Even a "Mrs. Cass" was dragged into this crude quack hunt for victims.



CASS LABORATORIES
62 NO. & LA SALLE STS.
CHICAGO

H. L. CASS CORPORATION
62 NO. & LA SALLE STS.
CHICAGO

To avoid the issuance of a fraud order debarring from the United States mails the quackery exploited under the name "Cass Laboratories," H. L. Cassel, the head quack of the concern, sent in a sworn statement to the government that the "Cass Laboratories" had "been discontinued and abandoned" and would not be resumed. The same quackery is now being conducted under the name "H. L. Cass Corporation," a change of name but not of business that was effected at least a month before Cassel sent in his affidavit.

The Journal article described in detail the misleading and quackish character of the claims made for the alleged treatment, and published the analysis made of the nostrum by the A. M. A. Chemical Laboratory. The "treatment" consisted of baking soda tablets, of other tablets containing aspirin and cinchophen, and of some flavored epsom salt.

In October, 1926, the Post Office Department called on the Cass Laboratories to show cause why a fraud order should not be issued against it. Toward the end of February, 1927, Cassel submitted an affidavit to the Post Office Department, declaring that he was authorized and empowered to execute it on behalf of the Cass Laboratories, and swearing:

> "That the business heretofore conducted under the name Cass Laboratories has been discontinued and abandoned and will not be resumed at any time in the future."

The facts were, that for a month or more before Cassel made this sworn statement, the name "Cass Laboratories" had been abandoned and the rheumatic public was receiving the same line of quackery sent out under a new trade name: "H. L. Cass Corporation."

It is to be hoped that when the Post Office Department gets around to these quacks again that it will appraise the oath of this concern at its obvious value and issue a fraud order not only against the company itself, but against the individuals who are conducting it.

Correspondence

INJECTION TREATMENT OF VARICOSE VEINS

To the Editor:—I was much interested in the editorial (The Journal, May 14, p. 1571), on "The Injection Treatment of Varicose Veins," which reported Lomholt's fatal case of pulmonary embolism. I have successfully treated more than a hundred patients by the injection method in the last five years, and have always assumed that embolism was a mechanical impossibility in these cases on account of the extreme toughness and firm adherence of the chemically induced thrombi.

The extreme degree and persistence of the acute inflammatory reaction in the injected veins in Lomholt's case suggests that the thrombi had become infected by pyogenic bacteria in the blood stream, perhaps from abscessed teeth or other foci. I have always insisted on the eradication of all foci of infection before injecting any varicose veins, and my occasional neglect of this precaution has usually been followed by a severe inflammatory reaction. Possibly, Lomholt followed the recent pernicious advice of Linser of Tübingen, who stated that the 20 per cent sodium chloride solution need not be boiled, "as it is self-sterilizing." I tried this once, got an infected thrombus, and have boiled my solution ever since. Finally, it is obvious from the data given that Lomholt's patient had a chronic myocarditis and developed auricular fibrillation. As pulmonary embolism is a fairly common complication of auricular fibrillation, and an excessively rare complication (according to the literature) of the injection treatment of varicose veins, it seems at least plausible to me that the embolus in this case came from the right auricular appendage rather than from the obliterated and firmly contracted long saphenous vein. It is unfortunate that there was no autopsy to settle this point. In any case, this experience of Lomholt is no argument against an excellent therapeutic procedure, as embolism has been reported several times following varicotomy, the embolus coming from the ligated proximal stump of the long saphenous vein.

Hermann Schussler, Jr., M.D., San Francisco.

A PIONEER PRECEPTOR

To the Editor:—In his paper on surgical progress, Kanavel mentions Parkes as the preceptor of Albert J. Ochsner. Dr. Ochsner had another preceptor who influenced him to take one of the most important steps of his career. When he was a young man teaching school at Ironton, Wis., saving a few hundred dollars that he might proceed directly to medical college, he was blessed with the friendship of E. J. Lewis, the village doctor. Dr. Lewis instructed the young man in anatomy and physiology and prevailed on him to enter the state university, where, in due time, he received the bachelor's degree in science. Dr. Lewis, himself a man of culture and descended through generations of a Connecticut family with root stock in Wales, was one of the men who thus early knew that success in medical work would increasingly require a higher degree of preliminary education. Without his influence, the work of Ochsner could not have been so fruitful.

Dr. Lewis, who was the father of the novelist Sinclair Lewis, removed to Sauk Center, Minn., where he continued practice to the time of his death last August. His friendship with Ochsner was continuous.

His home in Sauk Center was a center of culture, where many young physicians received helpful hospitality. He was one of the unostentatious lights, who point the way, where well known lights shine not.

S. H. Corrigan, M.D., Lampman, Sask.

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

ECZEMA OF HANDS AND FEET

To the Editor.—I have a patient suffering with a moist eczematoid condition of the skin of the hands and feet. This occurs annually about this time of the year and the warmer months of summer. It is exceedingly moist, saturating his stockings in a very short time. It progresses peripherally and has dry scaly margins. He has been to several dermatologists without any immediate relief and then takes up home treatment with petrolatum or epsom salt solution, which seem to [illegible]. I have had scrapings examined and have obtained a heavy growth of yeast. No other organisms have been found so far after two weeks' culture. The textbooks do not seem to offer any treatment. Can you suggest a course of treatment I might try? Please omit my name.

M.D., Philadelphia.

Answer.—Many of these cases of eczema of the hands and feet are ringworm infection. A very few are due to yeast. The ringworm (tineal) eczemas of the hands and feet are the commonest affections of these parts that the dermatologist sees. The condition is described in the works on dermatology under ringworm of the hands and feet, eczematoid ringworm, epidermophytosis, tineal dermatitis. It is only within recent years, however, that the very common role of tineas in causing eczema of these parts has been recognized.

In the acute cases wet dressings of aluminum acetate solution of the following formula is one of the best applications:

8 per cent aluminum acetate solution	30 cc.
Water	to make 500 cc.

Use this as much as possible, and, in the intervals when this cannot be used, keep the parts greased with a bland ointment such as cold cream. When the condition is subacute, antiseptics are indicated. Tincture of iodine from a strength of 2 per cent up to full strength (10 per cent) is one of the best applications. Various special mercurial antiseptic solutions are useful. One of the favorite applications is Whitfield's ointment:

Salicylic acid	6 per cent
Benzoic acid	12 per cent
Petrolatum	sufficient to make 100 per cent

This must be diluted to one third or one half strength in using at the start.

The foregoing suggestions indicate the line of treatment. More detailed treatment can be found in any of the recent works on dermatology.

THICKENED NAIL

To the Editor.—I have a patient who has a thickened and painful toe nail. The nail is too hard and thick to be cut off. Can you suggest anything that can be put on that will destroy the nail?

P. Stappenbeck, M.D., Brock, Neb.

Answer.—The best treatment would be the removal of the entire nail and the destruction of the matrix. Chemical destruction is a dangerous procedure.

TREATMENT OF AURICULAR FIBRILLATION

To the Editor.—What is the prognosis as to life and work of a patient who has had auricular fibrillation for five years but who has obtained normal cardiac rhythm under quinidine sulphate? Would it be advisable for him to have sexual intercourse or attend moving picture shows, ball games and the like? How long should he be kept on this medication? Please omit name.

M.D., N. Y.

Answer.—An opinion as to prognosis cannot be based on the presence or absence of auricular fibrillation. The prognosis depends:

1. Above all other considerations, on the presence or absence of an active infection involving the heart itself. This might be an endocarditis so mild as to give slight symptoms but constantly doing progressive harm.

2. If such infection is not present, on the recurrence with consequent further harm. A heart previously infected is predisposed to such infection.

3. On the amount of anatomic change already present and whether it is sufficient to impair the function of the heart, and if it is, to what extent the function is impaired.

4. To a relatively small extent on occupation and mode of life.

The presence or absence of auricular fibrillation is little of a determining factor in the prognosis except that the presence of auricular fibrillation usually indicates some amount of injury to the heart. Auricular fibrillation is not a great mechanical disadvantage, provided the rate is not too rapid or that it is controlled by digitalis. A patient with an otherwise competent heart, when anatomic changes in the valves or muscles have not progressed too far and with no active infection present, can go through life comfortably and indefinitely with an auricular fibrillation.

The question as to the mode of life and amount of exercise depends so closely on the factors mentioned that the decision in this particular case must be left to the judgment of the correspondent. In general, severe exertion would tend to cause auricular fibrillation to recur and his activities should be increased gradually if it is thought best to increase them. If he has gone five years without recurrence, the quinidine could certainly be stopped, and in the absence of any evidence of infection his activity could be gradually increased, the amount of increase depending on his response.

RECURRENT SWELLING OF SPERMATIC CORD

To the Editor.—I have a patient in whom swelling of the spermatic cord from the testes up as far as it can be felt, and presumably the seminal vesicles, occurs gradually for about seven days after sexual intercourse. Just after intercourse the swelling entirely disappears along with the pain, which is, no doubt, due to the tension. At the seventh day the swelling is quite prominent on both sides. There is no varicocele. The patient had an operation on the left side two years ago for hernia, but the swelling has been taking place for four years. He had syphilis about twenty years ago; subsequent Wassermann reactions, the last one two years ago, were negative. He never had gonorrhea. There is a mild prostatitis with pus cells but without organisms. I have been giving diathermy, massages and irrigations. Kindly advise probable cause and treatment. Please omit my name.

M.D., Louisiana.

Answer.—The recurrent swelling of the cord is undoubtedly due to a chronic inflammation of the seminal vesicles and subsequent atony of these organs. Stripping of the vesicles, if done only with the finger, does not furnish results; it has to be executed by a massage instrument devised for this purpose. Occasionally vasostomy and subsequent injections of an antiseptic solution give results. The same is true of intravenous injection of small doses of neoarsphenamine. If all this fails, relief of the periodic swelling of the cord is brought about by resection of the tunica of the vas.

NERVOUS SYMPTOMS AFTER THYROIDECTOMY

To the Editor.—A woman, aged 39, was taken to the hospital with symptoms of toxic goiter. The rate of metabolism was + 85. On treatment with compound solution of iodine this went down to + 35, when thyroidectomy was performed. One fifth of the gland was left in. After the operation the patient felt fairly well. About eight days later she commenced to get attacks of nervousness and tremor, especially in the mornings. Again compound solution of iodine was given to her for a few days but without result. Therefore, this medicine was changed to parathyroid extract combined with calcium lactate, given orally. The patient apparently responded well to this medication, being able to get out of bed and walk around in the house, and the tremor seeming to ameliorate. A few days ago, that is, six weeks after the operation, however, the patient began to have severe attacks of sleeplessness, palpitation, tremor with tendency to jump out of bed, and pains in the heart region which made lying on the left side impossible. Now I started to give her calcium chloride intravenously with simultaneous oral administration of parathyroid extract, but it is too early yet to draw any conclusion regarding the result. I would appreciate any suggestion concerning treatment. Kindly omit my name.

M.D., New Jersey.

Answer.—The condition described may be due to a persistent hyperthyroidism because of the amount of thyroid tissue that was not removed at operation. It is therefore suggested that another basal metabolic rate be obtained. At any rate, it is advisable at this time not to give more compound solution of iodine. If the basal metabolic rate is still elevated, prolonged rest with sedatives and an attempt to remove any focus of infection should be instituted. If after a fair trial this is of no avail, it may be necessary to remove that portion of the thyroid gland still remaining. There is a possibility that the symptoms described may be due to removal of parathyroid tissue at operation. It is necessary to know whether the patient's myotatic irritability is increased, whether a Chvostek sign is present, and whether the threshold of the electrical excitability of the peripheral nerves is decreased. If these are positive, treatment should be continued.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama: Montgomery, July 12-15. Chairman, Dr. S. W. Welch, Montgomery.

Arizona: Phoenix, July 5-6. Sec., Dr. W O. Sweek, 404 Heard Bldg., Phoenix.

California: San Francisco, June 27-30. Sec., Dr. Charles B. Pinkham, 908 Forum Bldg., Sacramento.

Colorado: Denver, July 5. Sec., Dr. David A. Strickler, 1011 Republic Bldg., Denver.

Connecticut: Hartford, July 12-13. Sec. Dr. Robert L. Rowley, 79 Elm Street, Hartford.

Delaware: Wilmington, June 21-23. State Society and Homeopathic. Pres., Dr. H. W. Briggs, 1026 Jackson St., Wilmington.

District of Columbia: July 12. Sec., Dr. Edgar P. Copeland, Suite 110, 1801 Eye Street, Washington.

Hawaii: Honolulu, July 11-14. Sec., Dr. James A. Morgan, Young Bldg., Honolulu.

Illinois: Chicago, June 28-30. Supt. of Regis., Mr. V. C. Michels, Springfield.

Indiana: Indianapolis, June 21-23. Sec., Dr. E. M. Shanklin, 421 State House, Indianapolis.

Kansas: Topeka, June 21. Sec., Dr. A. S. Ross, Sabetha.

Kentucky: Louisville, June 21-23. Sec., Dr. A. T. McCormack, 532 W. Main Street, Louisville.

Maine: Bangor, July 5-6. Sec., Dr. Adam P. Leighton, Jr., 192 State Street, Portland.

Maryland: Baltimore, June 21-24. Sec., Dr. Henry M. Fitzhugh, 1211 Cathedral St., Batlimore.

Massachusetts: Boston, July 12-14. Sec., Dr. Frank M. Vaughan, 144 State House, Boston.

Michigan: Detroit, June 20-22. Sec., Dr. Guy L. Connor, 707 Stroh Building, Detroit.

Minnesota: Minneapolis, June 21-23. Sec., Dr. A. E. Comstock, 636 Lowry Building, St. Paul.

Mississippi: Jackson, June 21-22. Sec., Dr. Felix J. Underwood, Jackson.

Missouri: St. Louis, July 13-15. Sec., Dr. James Stewart, Jefferson City.

New York: Albany, Buffalo, New York and Syracuse, June 27-30. Chief, Professional Examinations, Mr. Herbert J. Hamilton, State Education Bldg., Albany.

North Carolina: Raleigh, June 21. Sec., Dr. John W. MacConnell, Davidson.

North Dakota: Grand Forks, July 5-8. Sec., Dr. G. M. Williamson, Grand Forks.

Oregon: Portland, July 5-7. Sec., Dr. M. K. Hall, 816 Pittock Block, Portland.

Pennsylvania: Philadelphia and Pittsburgh, July 5-9. Dir. Professional Education Bureau, Mr. C. D. Koch, Harrisburg.

Rhode Island: Providence, July 7. Sec., Dr. B. U. Richards, Providence.

South Carolina: Columbia, June 28. Sec., Dr. A. Earle Boozer, 505 Saluda Ave., Columbia.

South Dakota: Huron, July 19. Dir. Medical Licensure, Dr. H. R. Kenaston, Bonesteel.

Texas: Austin, June 21-23. Sec., Dr. T. J. Crowe, 918 Mercantile Bank Bldg., Dallas.

Vermont: Burlington, June 22-24. Sec., Dr. W. Scott Nay, Underhill.

Washington: Seattle, July 11. Basic Science Examination, Seattle, July 7-8. Ass't. Director, Mr. George L. Berger, Olympia.

West Virginia: Martinsburg, July 26. Commissioner, Dr. W. T. Henshaw, Charleston.

Wisconsin: Milwaukee, June 28-30. Sec., Dr. Robert E. Flynn, La Crosse. Basic Science Board: Milwaukee, June 27. Sec., Dr. M. F. Guyer, Madison.

Minnesota January Examination

Dr. A. E. Comstock, secretary of the Minnesota Board of Medical Examiners, reports the written, oral and practical examination held at Minneapolis, Jan. 4-6, 1927. The examination covered 15 subjects and included 80 questions. An average of 75 per cent was required to pass. Forty-five candidates were examined, all of whom passed. Twenty-two candidates were licensed by reciprocity. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent
Stanford Univ ..		89.4
Northwestern		88.4, 89
Rush Medical		90.4
University of ..		90.5, 91.6,
(1926)* 85.6, 85.8, 86.7, 87.2, 87.2, 87.3, 87.5, 87.7, 88, 88, 88.8, 89, 89, 89.1, 89.1, 89.4, 89.4, 89.5, 89.5, 89.5, 89.5, 89.7, 89.8, 90.3, 90.3, 90.8, 91.2, 91.4, 91.7, (1927) 90.5, 91.6		
St. Louis University School of Medicine	(1926)	89.4
Washington University School of Medicine	(1925)	88.8, 89
Columbia University College of Phys. and Surgs	(1926)	89.9
Cornell University Medical College	(1925)	84.4
University of Pennsylvania School of Medicine	(1924)	86.7
McGill University Faculty of Medicine	(1925)	90.8
Durham University, England	(1924)	90.4

LICENSED BY RECIPROCITY

College	Year Grad.	Reciprocity with
College of Medical Evangelists	(1925)	California
Emory University School of Medicine	(1925)	Georgia
Loyola University School of Medicine	(1926)	Tennessee
Northwestern University Medical School	(1926)	Ohio
Rush Medical College	(1925)	Illinois
State University of Iowa College of Medicine	(1921)	Iowa
Johns Hopkins University School of Medicine	(1924)	Maryland
Harvard University	(1925)	Illinois
University of Michigan Medical School	(1924, 2)	Michigan, Maryland
Creighton University School of Medicine	(1908), (1926)	Nebraska
University of Nebraska Coll. of Med.	(1924), (1925), (1926)	Nebraska
Ohio State University College of Medicine	(1921)	Wisconsin
	(1924)	Ohio
University of Cincinnati College of Medicine	(1924)	Ohio
Jefferson Medical College of Philadelphia	(1923)	Penna.
University of Pennsylvania School of Medicine	(1923)	Penna.
Marquette University School of Medicine	(1926)	Wisconsin

* These candidates have completed the medical course and received the M.B. degree and will receive the M.D. degree on completion of a year's internship in a hospital.

Medical Economics

OWNERSHIP OF ROENTGENOGRAMS AND HOSPITAL RECORDS

Careful search has failed to reveal any case in which a court has decided whether a person who is roentgenographed is, in the absence of an express agreement, entitled to the resulting roentgenogram. A somewhat similar question has been decided, however, with respect to the right of a person photographed to the photographic negatives incident to the process. Courts have held that the negative is the property of the photographer, subject to certain restrictions on its use.[1] But the parallel is not perfect; every one knows that a person who presents himself to a photographer to be photographed expects to receive a photograph and does not expect to receive any intermediate product of the process of manufacture, but it is not clear whether a person who presents himself to be roentgenographed expects to receive, and the roentgenologist expects to give, an opinion and advice, or a roentgenogram, or both. In the absence of an express agreement, a court that is called on to determine the question will try to find out what was in the minds of the parties to the transaction at the time it occurred. To that end it must look for proof of a reasonably definite and generally recognized understanding among roentgenologists and their patrons with respect to the matter.

Proof of any understanding whatever among the nonprofessional public would probably be difficult. Persons of this class are referred to roentgenologists, present themselves for examination, and await the reports of the results, which they receive through their physicians; they do not stop, before being roentgenographed, to ask whether or not they are going to receive roentgenograms. Among roentgenologists and physicians generally, however, a common understanding is more readily susceptible of proof. A formal statement of that understanding by a representative professional group is to be found in resolutions adopted in 1920 by the Radiological Society of North America. There it is expressed as the sense of the society that all roentgenograms, plates, films, negatives, photographs, tracings or other records of examination are the exclusive property of the roentgenologist who made them or of the laboratory where they were made. The roentgenologist is declared to be a professional man, whose opinion and advice are sought; he is not a mere technician, paid to make a certain kind of photograph called a roentgenogram. He is a consultant in all cases in which he is called on to examine patients; therefore he is not to make known to a patient or to a patient's relatives, friends or guardian any of his observations or conclusions. He is not to deliver to any of them any plate, negative, film or print unless requested so to do by the physician who referred the patient for examination or who is in charge of the case. Evidence showing a general acceptance by the profession of the principles laid down in these resolutions will go a long way, in the absence of an express agreement, toward settling the question of the ownership of the roentgenogram, if and when that question comes before the courts.

The fact that a roentgenogram was made by a hospital, through its roentgenologist, and not by a roentgenologist acting for himself, does not alter the situation just stated, except that it makes a stronger case for the retention of the roentgenogram by the hospital. A hospital may make such reasonable regulations as are necessary for its efficient management. If any such regulation is in fact brought to the attention of a patient or a physician using the hospital, or if he has actual knowledge of that regulation, before he enters on such use, he is bound by it. The fact that the regulation is posted in and about the hospital or even that it has been customarily followed for a long time would tend to prove such knowledge on the part of a physician or a patient and to bind him accordingly. If any such regulation requires that the records, including roentgenograms, remain in the hospital, it would presumably be sufficient to compel a physician or a patient to leave his case records there, including roentgenograms.

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[1] Corliss et al. v. Walker Co. et al., 64 Fed. 280. Pollard v. Photographic Company, 49 Ch. Div. 345.

Whether a patient may as a matter of right inspect his hospital records, including any roentgenogram that may form a part of it, or may have that record inspected on his behalf, or may make a copy of it or have a copy made, and whether he may require the hospital to provide him with a copy of the record on tendering the cost of making it, are questions that the courts have apparently not been called on to decide. If such questions are fairly presented, a court may not unreasonably hold that a patient is entitled to make such an inspection or to have it made, under conditions that do not interfere with the orderly operation of the hospital It seems not unlikely, too, that the court may hold that a patient is entitled to a copy of this hospital record so far as it is necessary to his welfare, at least on payment of the cost of preparing the copy. The fact that these various questions have never been carried to the courts of last resort and possibly to no other courts suggests very strongly that they are usually settled by the parties on the basis of equity and common sense—which, after all, is the very best way to settle them.

Book Notices

Studies in Intracranial Physiology and Surgery. The Third Circulation. The Hypophysis. The Gliomas. By Harvey Cushing, M.D. The Cameron Prize Lectures delivered at the University of Edinburgh, October 19, 20, 22, 1925. Cloth. Price, $3.25. Pp. 146, with 16 illustrations. New York: Oxford University Press, 1926.

The three Cameron prize lectures given by Cushing at the University of Edinburgh have been published in book form. They represent the work of his pupils and himself on the cerebrospinal fluid, the hypophysis and intracranial tumors. One marvels at the amount and diversity of the investigations which he has pursued, but his greatest contribution is perhaps the enthusiasm and spirit for research which he has stimulated in others. Herein he is kin to the great teacher whose life he has told so vividly. The lectures not only tell the story to date but are full of unsolved queries which will probably direct the lines of future work on these subjects.

Handbuch der inneren Sekretion. Eine umfassende Darstellung der Anatomie, Physiologie und Pathologie der endokrinen Drüsen. Herausgegeben von Dr. Max Hirsch. Band I. Lieferung 2. Band II. Lieferung 2. Paper. Price, 13.50 and 12 marks. Pp. 197-336, and 277-422, with illustrations. Leipsic: Curt Kabitzsch, 1927.

These two divisions of this ambitious system contain chapters on the hypophysis and epiphysis by Aschner, chapters on the mammary glands, uterus, vagina and placenta by Lahm, a chapter on the testis by Jaffe and Berberich, and a chapter on the epididymis and the prostate by Fischer. Both numbers are well illustrated with anatomic preparations and photographs. Dr. Aschner is one of the earlier workers in the field of hypophysial physiology by the method of extirpation. The informed reader finishes Dr. Aschner's chapter on the hypophysis with the feeling that the Viennese investigator is not down to date. For example, in such an ambitious undertaking published in 1927 one certainly would expect reference to the important work of Smith, Evans, Borquin and others in this country on the various phases of hypophysial physiology, as well as reference to the experiments of Dandy and of Horrax on the pineal body. One looks in vain for either. The clitoris is listed as an organ of internal secretion, but fortunately Dr. Lahm sums up the discussion on this subject with the statement that "nothing is known concerning the internal secretion of the clitoris." The same author concludes in the chapter on the placenta that "it is yet an open question whether the lipoids of the placenta are specific" and that "nothing definite has been proven regarding the hormone character of the placenta lipoids." The final statement on the placenta as an endocrine organ reads, "According to the best information to date the placenta is not an independent organ of internal secretion."

Tuberculosis: Bacteriology, Pathology and Laboratory Diagnosis with Sections on Immunology, Epidemiology, Prophylaxis and Experimental Therapy. By Edward R. Baldwin, M.D., Director of the Trudeau Foundation, S. A. Petroff, Ph.D., Bacteriologist and Director of Trudeau Sanatorium Research and Clinical Laboratory, and Leroy U. Gardner, M.D., Pathologist and Director of Saranac Laboratory for the Study of Tuberculosis. The Trudeau Foundation Studies. Cloth. Price, $4.50. Pp. 342, with 86 illustrations. Philadelphia: Lea & Febiger, 1927.

In this book the fields indicated within the broad scope of the title are covered with extraordinary conciseness without sacrifice of important, informing detail. The work represents an excellent selection of the significant. After a brief historical introduction, the subject matter is opened with chapters on the tubercle bacillus, which are properly conventional but at the same time cover recently established contributions to the subject. Chapters on experimental tuberculous infection, reinfection and immunity bring together in a well written section material heretofore widely scattered in the literature of tuberculosis, much of it coming originally from or directly inspired by the laboratories from which this book emanates. Two chapters on the pathologic anatomy of human tuberculosis would be a credit to any textbook of general and special pathology, and have the special merit of making available for general reading some of the authors' own studies, such as the anatomic healing of intestinal tuberculosis. There is a clear and also optimistic chapter on epidemiology, in which the factors responsible for the recent rapid decline in tuberculosis mortality are outlined and analyzed. The section on laboratory methods in diagnosis fills a long felt want in public health, research and hospital laboratories. Careful captioning and subheading of the subject matter make of the work an extensive outline as well as an adequate treatise. Investigators in any of the fields touched will find the bibliography cited well selected. In spite of the extent of scientific material covered by the book, the authors have found space in its 300 pages to furnish brief, practical instructions on the minor but neglected matter of the care of animals. The press work is excellent and the illustrations are clear.

Exophthalmic Goitre. By John Eason, M.D., F.R.C.P.E., Physician, Royal Infirmary, Edinburgh. Cloth. Price, 12/6 net. Pp. 215, with illustrations. Edinburgh: Oliver & Boyd, 1927.

The author should be congratulated on bringing before the profession in concise form the essentials of the subject. The book is not intended to be an encyclopedia but a monograph correlating the latest views and presenting in a condensed manner the author's conclusions and how and why they were formed. The exposition is rapid and clear, with many graphic references to recent literature. Its excellence of literary style, its systematic organization and its presentation of precise practical deductions call for special appreciation. The subject is treated in a critical rather than a dogmatic manner. Although brief the text is full, and clearness has not been sacrificed for brevity. The author has been successful in his endeavor to appraise "the relative importance of the sympathetic and parasympathetic divisions in regard to symptomatology and pathogenesis and to show the relationship of autonomic tone to general nervous excitability, general cell hyperactivity and thyroid hyperfunction." The first chapter deals with the difficult subject of the general anatomic and physiologic considerations of the thyroid vesicle as the unit of secretion. In succeeding chapters, the etiology, symptomatology, pathologic changes, prognosis and treatment are clearly dealt with. The indications and contraindications for the different forms of treatment, medical, roentgen-ray and surgical, are definitely and clearly set forth. The author does not deal with the technic of operation or with psychotherapy, but other forms of treatment are discussed in a thorough manner. The author is skeptical with regard to the reliability of conclusions founded only on animal experimentation The book is in every sense of the word practical, replete with suggestions, and valuable not only to the specialist but also to the general practitioner who desires a clear, full sketch of the present knowledge of exophthalmic goiter without having to read all the voluminous and often conflicting literature on the subject

THE NATURAL HISTORY OF OUR CONDUCT By William E Ritter, President of Science Service With the Collaboration of Edna Watson Bailey, Lecturer in Education & Association Director of Practice Teaching, University of California Cloth Price, $3 50 Pp 339 New York, Harcourt, Brace & Company, 1927.

The evolutionists are, of course, convinced that not only *the body of man but also his behavior is a direct development* from lower forms The purpose of Dr Ritter's volume is to establish not only the former fact but also the latter He indicates that the only successful animal activities are those which are purposeful, but there are also maladaptive activities which work for the destruction of the animal Human beings also act occasionally for their own destruction One of the remarkable facts is the lack of regret, sorrow, remorse or sympathy in animal forms in active destruction to their own kind However, Dr Ritter expresses the belief that many mammals and birds do possess the germs of moral *consciousness He traces adaptive activities of* self-injury through the birds, the mammals and the anthropoid apes to a similar process among human beings of low culture and of high culture Unfortunately, some of the problems concerned have been so little studied that conclusions are difficult Man is the most adaptive of all living beings, that adaptation has come about through his gradual development over a vast period of time

KURZES LEHRBUCH DER CHEMISCHEN PHYSIOLOGIE Von Dr Ernst Schmitz, o o Professor an der Universitat Breslau Second edition Cloth Price, 16 80 marks Pp 384 Berlin S Karger, 1927

This short textbook covers the ground usually included in the older works on physiologic chemistry It is a good introductory volume The first two chapters are devoted to general remarks together with brief but hardly worth-while discussions on solutions, osmotic pressure, electrolytic dissociation, colloids, surface tension, and mineral composition of organisms Then follow brief but good descriptive chapters on lipins, carbohydrates, proteins and nucleoproteins Many new observations are cited, but little attempt is made to try to organize the material for the student on a general fundamental organic chemistry basis The enzymes are treated briefly under digestion Absorption is well treated from the standpoint of specificity, but there is no theoretical discussion on the possible mechanisms involved Blood and lymph are discussed at *some length, but the student is not aided in* finding his way through the maze of terminology which has crept into the literature on the subject of blood coagulation Then follow chapters on the liver, muscle, nerve, connective tissue, milk, urine, skin, internal secretions, respiration and general metabolism Muscle metabolism and the chemistry involved in muscle activity are well treated The book is well bound and excellently printed

EXAMINATION OF CHILDREN BY CLINICAL AND LABORATORY METHODS By Abraham Levinson, B S , M D , Associate in Pediatrics, Northwestern University Medical School Second edition Cloth Price, $3 50 Pp 192, with 85 illustrations *St Louis C V* Mosby Company, 1927

Those physicians who argue that the child is merely a small replica of the adult, and that it is only necessary to consider his physical disturbances in that light, will find much cause for revising their opinion in this practical guidebook to methods of physical examination as applied to the child All the subjective symptoms and the history to which one gives such care *in examining* the adult are here had at second hand from the mother or some other relative The technical procedures in which the adult frequently cooperates are carried out on the child sometimes under conditions of great resistance The conditions of the *blood* both as to morphology and as to chemistry vary greatly All apparatus applied directly to the infant is obviously in miniature. These are the considerations underlying Dr Levinson's contribution The advice given is direct All the chapters are fully illustrated, and the methods are based on extensive experience both in the hospital and in the home Of greatest importance are the indications under which certain diagnostic procedures are warranted These the author selects with a practical conservatism

KLINISCHE SYMPTOMATOLOGIE UND DIFFERENTIAL DIAGNOSE INNERER KRANKHEITEN Band III Weitere klinische Symptome und Differential Diagnose Von Prof Dr Norbert Ortner, Vorstand der II med Klinik der Universitat Wien, Hofrat Second edition Paper Price, 21 marks Pp 457 Berlin Urban & Schwarzenberg, 1927

It is difficult to review this work because of its encyclopedic character The contents are so extensive that the best that can be expected is a short description of any one subject The author *has succeeded, nevertheless, in giving in* presentable form a differential diagnosis of all the tumors of the abdomen and all the conditions associated with fever, pulmonary and cardiac diseases, liver enlargements and the psychasthenic states The value is enhanced by a marginal index whereby the subject matter sought for can be easily located A differential diagnosis of conditions associated with fever is so vast that one can hardly expect much in twenty-eight or thirty pages It would seem, therefore, that this discussion were better eliminated and more space devoted to other conditions There are too many repetitions in the section devoted *to abdominal tumors This is due to the* overlapping of tumors from one part to another of the sections in which the abdomen is divided for discussion On the whole, the book is satisfactory for physicians who want a rapid aid in diagnosis

Books Received

Books received are acknowledged in this column, and such acknowledgment *must be regarded as a sufficient return for the courtesy of the* sender Selections will be made for more extensive review in the interests of our readers and as space permits Books listed in this department are not available for lending Any information concerning them will be supplied on request

CHIRURGISCHE RONTGENOLOGIE Ein Grundriss der Anwendung der Rontgenstrahlen in der Chirurgie mit einem Anhang Radiumtherapie Von Dr Hans Kurtzahn, Privatdozent fur Chirurgie (chirurgische Universitats Klinik, Konigsberg) Mit einem Geleitwort von Prof Dr M Kirschner Direktor der chirurgischen Universitats Klinik, Konigsberg Paper Price, 10 20 marks Pp 216, with 110 illustrations Berlin Urban & Schwarzenberg, 1927

Brief text with outline of technic and indications

EXPERIMENTELLE UND KLINISCHE BETRACHTUNGEN UBER DIE GLEICHFORMIGKEIT VON NERVEN , HORMON GIFT UND IONENWIRKUNG AUF DIE WASSERBEWEGUNG IM ORGANISMUS Von Fr Kraus Heft 2 Sammlung der von Nothnagel Stiftung veranstalteten Vortrage Paper Price, 1 80 marks Pp 23, with 4 illustrations Berlin Urban & Schwarzenberg, 1927

Showing that the water metabolism of the body is a complicated process

HISTORY OF CARDIOLOGY By Louis Faugeres Bishop, M A, M D , Sc D , President, Medical Association of Greater City of New York, and John Neilson, Jr , B S , M D , Assistant in the Cardiac Clinic, St Luke's Hospital, New York With an Introduction by Victor Robinson, Ph C , M D Cloth Price, $5 Pp 71 New York Medical Life Press, 1927

A tracing of scientific attempts to solve the problems of heart disease, but with a large price for such a small book

THE HARVEY LECTURES Delivered Under the Auspices of the Harvey Society of New York, 1925 1926 Under the Patronage of the New York Academy of Medicine Series XXI By Dr F R Nager, Dr John H Northrop, Dr Warren H Lewis, Dr Edwin B *Wilson, Dr* Knud Faber, Dr B Brouwer and Dr J B Collip Cloth Price, $4 Pp 229, with illustrations Baltimore Williams & Wilkins Company, 1927

Classic lectures on a variety of medical topics

ANTIGENOTHERAPIE DE LA TUBERCULOSE PAR LES EXTRAITS METHYLIQUES DE BACILLES DE KOCH Par L Negre, et A Boquet, Chefs de laboratoire a l'Institut Pasteur Preface du Professeur A Calmette, membre de l'Academie de medecine, sous-directeur de l'Institut Pasteur. Paper Price, 16 francs *Pp* 158, with illustrations Paris Masson & Cie, 1927

Clinical report on use of tuberculins

Applied Municipal Sanitation By V M Ehlers Chief Sanitary Engineer, E G Eggert, Sanitary Engineer, and Ella G White Secretary, Division of Sanitary Engineering, State Health Department Cloth Pp 167, with illustrations Austin Texas Association of Sanitarians, 1925

Municipal practice in control of water, sewerage, milk and mosquitoes.

Clinical Application of Sunlight and Artificial Radiation, Including Their Physiological and Experimental Aspects with Special Reference to Tuberculosis By Edgar Mayer, M D Cloth Price, $5 Pp 468, with illustrations Baltimore Williams & Wilkins Company, 1926

A survey of light therapy with special reference to tuberculosis

The Principles of Pathology By Charles Powell White, M D, F R C S Honorary Lecturer in Pathology and Director of the Helen Swindells Laboratory in the University of Manchester Cloth Price $6 Pp 270 New York Longmans, Green & Company, 1927

Evidence and personal opinions of the processes causing disease and the changes they bring about

Obstetrics for Nurses By Joseph B DeLee A M M D Professor of Obstetrics at the Northwestern University Medical School Eighth edition Price $3 net Pp 635, with 267 illustrations Philadelphia W B Saunders Company, 1927

New edition with special changes on prevention of infection, analgesia and other obstetric procedures

Metabolisme de l'eau Oedemes Diurese Les therapeutiques hydriques Par Marcel Labbe professeur a la Faculte de medecine, et P L Violle chef de laboratoire a l'Institut d'hydrologie Paper Pp 6 Paris Masson & Cie, 1927

Monograph on edema, diuresis and hydrotherapy

The Sorcerer's Apprentice By Hans Heinz Ewer Translated from the German by Ludwig Lewisohn Cloth Price $3 Pp 3 7, with illustrations New York John Day Company 1927

Novel dealing with evangelism flagellation and other aberrations associated with religious ecstacy

The Golden Complex A Defence of Inferiority By Lee Wilson Dodd Cloth Price $1 75 Pp 171 New York John Day Company, 1927

A lightly humorous consideration of the newer psychology and the inferiority complex

Mental Tests in Clinical Practice By F L Wells Ph D, Chief of Psychological Laboratory Boston Psychopathic Hospital Cloth Price, $2 16 Pp 315 New York World Book Company, 1927

Technic and interpretation of intelligence tests and personality studies

Methods and Problems of Medical Education (Sixth Series) Paper Pp 275, with illustrations New York Rockefeller Foundation, 1927

Descriptions of equipment and buildings in many medical schools

Ueber Rheumatismus und chronische Gelenkerkrankungen Von Dr Wilhelm Schulhof Paper Pp 114 Budapest Petofi, 1926

Brief monograph without a new idea in it

Routine Procedures — The Lankenau Hospital Philadelphia, Pennsylvania Edited by Edward L Bortz M D, Associate in Medicine Leather Price $1 Pp 95 Philadelphia Lankenau Hospital, 1926

Onderzoekingen gedaan in het physiologisch laboratorium der rijksuniversiteit te Utrecht Door H Zwaardemaker Paper Pp 193, with illustrations Utrecht A Oosthoek 1927

Cremation and the Public Health By W Allen Daley, M D, M B, B Sc, Medical Officer of Health for the City of Hull Pp 16 London Cremation Society of England, 1927

Twenty Ninth Biennial Report of the State Board of Health of California for the Fiscal Years from July 1, 1924, to June 30, 1926 Paper Pp 197 Sacramento, 1926

Annual Report of the President of the Board of Health of the Territory of Hawaii for the Fiscal Year Ending June 30, 1926 Paper Pp 205 Honolulu, 1927

Transactions of the Seventy Third Annual Session of the Medical Society of the State of North Carolina Cloth Pp 62, with illustrations. Southern Pines 1927

Proceedings of Eighth Texas Water Works Short School Texas Section S W Water Works Association Bulletin No 1 Cloth Price $2 50 Pp 186 Austin 1926

Medicolegal

Typhoid Not Accidental Compensable Injury

(Buchanan et al v Maryland Casualty Co (Texas), 238 S W R 116)

The Commission of Appeals of Texas, section B, says that this cause was before the supreme court on a certificate from the court of civil appeals presenting for determination three questions Under the workmen's compensation act (of Texas), is typhoid, contracted by an employee as a result of impure water or food furnished by an employer, an accidental injury under the terms of the act? Under the workmen's compensation act, is typhoid, contracted by an employee as a result of the impure water or food furnished by an employer, a compensable injury? Was the trial court correct in sustaining a general demurrer to the claimants' petition, or was it error for the court of civil appeals to affirm the holding of the trial court in that respect? In this case an employee of a development company while working in its oil fields was stricken with typhoid, from which he died The claimants of compensation for his death averred that he contracted the fever by reason of the food or drinking water furnished him by the company But the commission of appeals was not able to find any decision allowing recovery in this kind of a case under a statute similar to that of Texas Under statutes similar to that of Texas it is the uniform holding of the courts that before any disease is compensable it must be the direct result of an injury Not only so, but that injury must be to the physical structure of the body This language has been construed to mean that the disease must result from violence on *the external portion of the body* The decision of the court of civil appeals in this case is in line with the authorities in other states which have statutes most similar to that of Texas, and it is recommended that the first question certified be answered in the negative, that the second question be answered in the negative, and that the third question be answered to the effect that the trial court correctly sustained the general demurrer and that the court of civil appeals reached the right conclusion in affirming such action by the trial court The opinion of the commission of appeals answering certified questions adopted and ordered certified to the court of civil appeals

"Good Health," "Illness," "Disease," "Sickness"

(Northwestern Mut Life Ins Co v Wiggins (U. S), 15 Fed R (2d) 616)

The United States Circuit Court of Appeals, ninth circuit, in affirming a judgment of dismissal, says that the plaintiff insurance company by suit in equity sought to cancel a policy issued by it, March 19, 1924, on the life of one Wiggins, on the ground that material false statements were knowingly made by him as to the condition of his health The plaintiff asserted that the insured had for several years had myelogenous leukemia, which caused his death, Sept 4, 1924 The trial court found that about four years prior to his application for the insurance he had some teeth extracted and bled profusely, that his family physician found that he had the disease referred to treated him for some time, and in July, 1922, advised him to take treatments from a roentgenologist, who gave him treatments into February, 1924, during which time he reported to his physician as often as once every two weeks to have an examination of his blood Neither physician ever disclosed to him the nature or character of his trouble, but made every effort to keep such knowledge from him They frequently, however, discussed with him his blood count, and his family physician once told him that he had anemia, and probably used the word "chronic" In his application for insurance he stated that he last consulted a physician 'two weeks ago, for general examination,' and answered 'Yes" to the question, "Have you fully recovered and are you now in good health?" He also answered "No' to questions asking him whether he had had any illness, disease or accident during the past ten years not mentioned, and whether he had had since childhood any chronic or constitutional disease or severe injury not fully set forth

Did the insured have knowledge of serious impairment of health? He knew he had 'chronic" anemia, that is, it had continued for some time. "Good health," "illness" and "disease" must be considered, in an application for insurance, not in the light of scientific technical definitions but in the light of the insured's understanding in connection with which the terms are employed in the examination. The most specific information that he had was that he had an impoverishment of the blood, or "thinness of the blood." This condition, the record disclosed, may be occasioned by hemorrhage. In the insured's case the inception of the condition to his mind was the extraction of teeth, which was no accident, and the physicians studiously kept from him his true condition. His condition did not interfere with his usual avocation. No indisposition of health had interrupted his daily attention to business except a day or two for a cold. He did not complain to his family or to any one with whom he came in contact. His family believed that he was in good health. "Sickness" is a condition interfering with the usual avocations. He took on new responsibilities by increasing his interest in business many thousand dollars. He was active and energetic. He was a layman, and, while he may have been conscious of a weakened condition of the body, perhaps from the loss of blood from the cavities of the extracted teeth, the proof did not establish such fact or that he knew he had a disease which tended to weaken or to undermine his constitution. He looked well; the examining physician believed that he was a good risk. His ignorance of affliction by disease or impairment of health was emphasized by the fact that he did not make his will until a month before his death. His answers were not warranties, and were presumed to be true. Fraud is never presumed, and to cancel the policy the burden was on the complainant to show that the answers were false by clear, cogent, convincing and certain proof. This court believes with the trial court that the plaintiff did not sustain the burden imposed by law.

Liability for Suicide of Patient in Sanatorium

(Smith v. Simpson et al. (Mo.), 288 S. W. R. 69)

The Kansas City (Mo.) Court of Appeals, in affirming a judgment for $3,000 for the plaintiff, for the death of his wife alleged to have been caused by the negligence of the defendants and their servants, says that the defendants were physicians who, as copartners, owned and conducted a private sanatorium in which Mrs. Smith was a patient and committed suicide by hanging herself from an elbow of a steam pipe, by the use of sheets. There was testimony in the plaintiff's behalf which tended to show that his wife was afflicted with nervous and mental disease with suicidal mania, and manifested a disposition to destroy herself, and that the defendants were fully informed of her condition when they accepted her as a patient after examination. As the court read the petition, the crux of the negligence charge was that the defendants failed to use ordinary care to watch Mrs. Smith, and thereby prevent her self-destruction, by reason of her alleged nervous and mental derangement. There was substantial evidence that the defendants knew of her suicidal tendency. There can be no question that it is the law that the defendants were required, not only to use ordinary care in treating the patient for her illness, but also to safeguard her from injuring herself by reason of her suicidal tendency.

It seemed to be the defendants' contention that, before the plaintiff could recover damages, he was required to prove that his wife was insane, but the court thinks that this contention was without merit in view of the fact that the allegations of the petition did not include insanity. It was not disputed that all the authorities hold that private hospitals owe to their patients such ordinary care and attention as the mental and physical condition of such patients reasonably requires. The law demands reasonable care, such care as a reasonable man would take under the circumstances existing; but no man is required to take measures against a danger which the circumstances as known to him do not suggest as likely to happen. These circumstances include the patient's mental condition and aberrations, and what he is likely to do by reason thereof, and the dangers afforded by his surroundings.

The plaintiff having produced substantial evidence in support of the allegations of his petition, this court must hold that there was no error in the action of the trial court in overruling the defendants' demurrer at the close of the evidence of the plaintiff. At best, there was raised an issue of fact for the jury's consideration. To the contention that an instruction to the jury was erroneous because it allowed recovery unless the defendants had nurses stationed to watch Mrs. Smith day and night, which was contrary to the care and duty imposed on them, the court answers that, as already stated, the degree of care and diligence required of the defendants was to be measured by the mental and nervous condition of the patient and the indicated dangers surrounding her.

There can be no question about the liability of a privately owned hospital or sanatorium, conducted for individual gain and not for charitable purposes, for damage to its patients resulting from negligence attributable to the owners or agents of such hospitals. Moreover, in the face of the record, the court is unwilling to accept as conclusive the defendants' argument that, if the plaintiff established the fact that his wife was insane and that she was suffering from suicidal mania, then he also established, under the proof offered, that she would never get well, and therefore that he had not been damaged. It must be held that the husband was entitled to compensation for the loss of the society and comfort of his wife as against any one negligently depriving him thereof. The question as to the amount of his damage was for the jury to determine, under all the facts and circumstances in evidence.

Examination and Testimony with Regard to Sanity

(Blocker v. State (Fla.), 110 So. R. 547)

The Supreme Court of Florida, in affirming a conviction of defendant Blocker of murder in the second degree, says that he relied on the defense of insanity. When a physician, who qualified as an expert and testified that he had examined the defendant in 1923 and again on the day before he gave testimony, was asked as to what condition he found the defendant in regarding mentality, objection was made that that was irrelevant; also that when the defendant was examined in 1923 his counsel was not present, because not invited to be present, and that in the absence of his counsel there was a deprivation of the defendant's constitutional rights. But evidence tending to show the insanity of the defendant in a criminal case makes material and relevant evidence tending to establish his sanity, when offered by the state in rebuttal. Furthermore, it is not necessary to the admission of evidence about the examination of a defendant in a criminal case, for the purpose of ascertaining his sanity or insanity, to show the presence of his counsel or notice to him. Such an examination ought not to be surreptitious or clandestine, but must be fairly and impartially made. However, there is no rule of law requiring the presence of, or an invitation to, the defendant's attorney to be present on such an occasion. An examination of a defendant to ascertain his mental condition is not a deprivation of his constitutional rights, nor does such an examination require him to give evidence against himself. It was apparent that the defendant in this case had full opportunity to cross-examine the alienists, and he did so. There was nothing to indicate anything but a painstaking examination of the defendant by the alienists, and, from this examination, under the law, it was the privilege of the parties to have such experts express their opinions as to the sanity of the defendant, and this without first detailing the circumstances or the course of such examination. The opinion of an expert witness as to the sanity of a person may, under the law, be given, subject to such cross-examination as is proper. An expert on insanity may give an opinion based on his own examination of a person, on his observation of that person, or on any state of facts, supported by some evidence in the case, which he assumes as true; but the judge should be informed whether he bases his opinion on his own knowledge, or on a hypothetic state of facts, and should know what portion of the evidence he has assumed to be true in forming his opinion. It is not required that a court caution a jury as to the value of expert testimony, or of the opinion of an expert on insanity given in answer to a hypothetic question. But the jury is entitled to all the facts on which the expert bases his opinion. If he answers a hypothetic question, the facts therein set forth must have been proved on the trial. If he rests his answer on facts and knowledge he has acquired himself, he must impart them to the jury, if asked to do so.

Society Proceedings

COMING MEETINGS

American Ophthalmological Society, Quebec, Canada June 27 29 Dr. Emory Hill, Professional Building, Richmond, Va Secretary
Minnesota State Medical Association Duluth, June 30 July Dr E A Meyerding, 11 West Summit Avenue St Paul, Secretary
Montana Medical Association of, Missoula July 13 14 Dr F G Balsam 222 Hart Albin Building Billings Secretary
New Hampshire Medical Society Portsmouth June 22 23 Dr D E Sullivan, 7 North State Street Concord Secretary
West Virginia State Medical Association White Sulphur Springs Jun 21 23 Mr Joe W Savage, 303 Professional Building Charleston, Executive Secretary
Wyoming State Medical Society, Cheyenne, June 27 29 Dr Earl Whedon Sheridan Secretary

ASSOCIATION OF AMERICAN PHYSICIANS

Forty Second Annual Meeting held at Atlantic City N J, May and 4, 1927

The Vice President, Dr A S Warthin,
Ann Arbor, Mich, in the Chair

Officers for 1927-1928

The officers of the association are president, A S Warthin, Ann Arbor Mich vice president, C P Howard, Montreal, secretary J H Means, Boston, recorder, Thomas R Boggs, Baltimore treasurer, George Blumer, New Haven, Conn; councilor, Joseph A Capps, Chicago

Hypertrophy and Dilatation of the Heart

Dr J A E Eyster, Madison Wis The theory of increased activity of the muscle is universally accepted the alteration in dynamics being the basis for this idea Alteration in the nutrition of the muscle may also play a role, but the idea of stretching of the muscle has not had experimental support In our work we have made experiments on dilatation preceding hypertrophy In studying experimental aortic stenosis and aortic regurgitation, puncture of the ventricular septum has been followed by an increase in size which reaches its maximum in seven days and disappears by the tenth day, when the heart is even smaller than normal, secondarily there occurs a later phase of enlargement which reaches its maximum in 100 days The heart is then longer and wider In experiments on occlusion of the aorta and running salt solution into the heart under high pressure the results were similar There seem to be two stages to these phenomena, the first due to stretching of the muscle and the second stage a hypertrophy of the muscle In the lesions experimentally produced the apex is the weakest part of the structure The same factor seems to hold true clinically The histologic picture shows increase in the size of the cells Venous pressure is not increased at first We divided the two stages of the lesion—the period of stretching, and the period of hypertrophy—and made the test of removing the band round the aorta on the third day It was found that the lesion progressed in the same manner Our studies were checked up by roentgen-ray examination and by clinical methods in man We found a distinction between hypertrophied and normal hearts There was no evidence of hypertrophy unless there was organic disease Clinical hypertension can exist many years without developing hypertrophy Our conclusions are, therefore, that injury to the muscle is one of the factors necessary to produce hypertrophy Whether increased work is the cause must be tested by further experiment

Changes in Human Electrocardiogram Following Iodine Medication and Thyroidectomy

Dr W W Hamburger, Chicago Studies have been made on early hyperthyroidism with the previously undamaged heart, and also studies on the result of the use of iodine in these cases In one patient, a girl of 16, who reacted unfavorably to compound solution of iodine, the T-wave went up and there was some evidence of decompensation Under digitalis treatment there was a drop in the T wave, although the reaction was unfavorable to iodine In seeking the reason for these changes in the T-wave following thyroidectomy, we may consider, first, probable changes with the slowing of the pulse rate, and, secondly, changes in the structure of the heart muscle which occur with changes in the T-wave in connection with changes of electric potential Also there are changes in the nervous regulatory control of the heart We need further studies to show which change is most constantly present In studies on normal people with the administration of iodine the results were conflicting Some had change in the T-wave and some did not The basal metabolism was not changed Iodine caused diminution of the T-wave in 50 per cent of cases Thyroidectomy caused the greatest diminution of the T-wave There was frequently inversion of the T-wave following thyroidectomy.

Association of Severe Anemia and Angina Pectoris

Dr James B Herrick, Chicago I have encountered three cases of severe anemia with typical anginal attacks One was a case of pernicious anemia, one, a case of myocardial disease and a severe anemia like pernicious anemia, and the third, a case of severe anemia in which the hemoglobin was only 16 per cent, because of hematuria of a year's duration This man had very distinct anginal attacks increasing in severity There were marked cardiovascular changes and high blood pressure The man lived several months, and autopsy showed carcinoma of the right kidney The coronary artery was sclerosed and there was fatty infiltration of the heart The lesson to be drawn from this series is that some patients with angina might need treatment directed to the improvement of the blood condition An improvement in general hygiene, including change of climate and a diet rich in carbohydrates and vitamins, would be indicated

DISCUSSION

Dr F T Lord, Boston: I have had 140 cases of angina, and only one case with significant anemia attributable to chronic nephritis

Dr George Kober, Washington, D. C: My personal experience with angina pectoris convinces me that toxins are capable of developing these lesions, and when the source of the toxins is removed the *vis medicatrix naturae* is capable of removing the damage inflicted My teeth apparently were the offenders in my case

Dr H Z Giffin, Rochester, Minn · In our experience, the attacks have been much milder than anginal attacks of other types There was only one instance of severe angina in pernicious anemia The cases formed 3 per cent of the total number of pernicious anemia cases The electrocardiographic findings were not remarkable, but autopsy showed stenosis of the coronaries

Dr Lewis A Conner, New York· This paper supplies evidence in favor of a coronary origin in cases of this type I have seen two such instances A distinguished surgeon in New York had attacks of angina which grew progressively worse until they were intolerable Then he developed pernicious anemia The attacks coming on frequently made his nights terrible on account of their severity When his attacks became so bad, he was given a large transfusion As a result of a transfusion of 1 000 cc, the attacks stopped suddenly He never had another attack until his blood became so low as to require a second transfusion After three or four weeks, the pain was relieved He had about forty or fifty transfusions at intervals of three or four weeks When the blood reaches a certain level the anginal attacks return and are an indication for another transfusion

Dr Henry A Christian, Boston There are two anatomic factors in relation to this subject First, the heart muscle is increased in bulk in severe anemia, patients with pernicious anemia have hypertrophic hearts and there is more muscle demanding blood supply Second, this heart muscle shows a very characteristic degeneration

Dr L G Rowntree, Rochester, Minn. Was there any lowering of the blood pressure in these cases? I have seen a similar condition occurring in Addison's disease in which the blood is normal, but the circulation is very poor. The anginal symptoms are mild, however

Dr S A Levine, Boston I had a similar experience to that of Dr Conner My patient had typical angina pectoris, in bed, without effort. The blood count was very low. I did a transfusion. The patient had no more attacks of angina after one transfusion. I think that the combination of coronary arteries and angina pectoris is not common. I do not think it likely that the anemia itself is the cause of the angina. The anemia would not initiate the attack without some background of coronary disease.

Dr. James R. Herrick, Chicago: I think that some of these cases are purely accidental. Perhaps the best answer is that as the blood improved the anginal attacks improved. Anemia is not the primary cause. There must be cardiovascular factors underlying the condition. I did not take blood pressure readings in these cases, so I cannot say whether it was high or not.

Pathogenesis of Syphilitic Aortic Insufficiency

Dr. R. W. Scott, Cleveland: Syphilitic lesions are an important cause of heart failure when they involve the root of the aorta. Aortic insufficiency is related to infiltration of the aortic ring or to lesions distal to the cusps. Usually, the aortic leaflets are invaded near the commissure, which is the spot most frequently involved in syphilitic hearts. The earliest lesions show obliterative changes in the arterioles in the region of the commissure, and also proliferation of new blood vessels. Therefore, syphilis spreads through the commissure to the aortic leaflets, through widening of the commissure. A late result seen at necropsy is due to fusion of the aortic intima with the aortic leaflets.

Relation of Syphilis to Angina Pectoris

Dr. Harlow Brooks, New York: Osler is quoted as saying that angina pectoris under the age of 40 years is strongly indicative of syphilis. I take issue with this generalization. I have found it in youth to occur with acute infections causative of myocardial disease, such as scarlet fever, tonsillitis, rheumatism and influenza generally. It may, and does, occur with syphilis, however, and syphilitic angina is more common than we suppose, and escapes us because it is recognized only in the immediately premortem stage, and is not frequently enough confirmed post mortem, especially in private practice. I classify true angina pectoris as comprising those cases which have definite pathologic anatomy as their basis. My cases of angina pectoris are grouped as: (*a*) those caused by myocardial defects; (*b*) those caused by aortitis, and (*c*) those due to disease of the coronary arteries. Cases associated with syphilis also follow this classification. My estimate of syphilitic angina is a cautious one, because it is quite possible for a patient with active syphilis to have angina due to other causes. The series comprises no postmortem evidence, but I have endeavored to exclude all questionable cases. Nine instances of syphilitic angina pectoris were discovered in a total of 200 cases of angina pectoris. The oldest patient was 63; the youngest, 51. The average age was 52.6 years. Only one case occurred in a woman. In four instances a definite history of syphilis was obtained. In no case had early or thorough treatment been given. Angina never appeared less than twenty years after initial infection, which corresponds to other evidences of cardiac syphilis. Three patients had also marked generalized arterial disease, also probably syphilitic in origin.

In regard to the anatomic structure involved: Only two patients had aortic disease: dilatation and sclerosis of the arch with aortic endocarditis. Only one case evidenced positive myocardial disease. In two cases there were coronary emboli. In four the aorta and the heart muscle showed definite lesions. Three of these cases showed marked improvement under treatment. Both patients with coronary embolism died promptly. In the histories of all cases there was the factor of stressful life, emotional stress, and occupation carrying long continued nervous strain. Two instances showed hypertension and one, hypotension. In the others blood pressure was approximately normal. From a study of these cases it appears that typical angina pectoris is not a very frequent symptomatic manifestation of syphilitic cardiac disease, no more than with cardiac disease caused by other factors. I feel also that anginal symptoms do not usually occur as an early manifestation of syphilitic heart disease. The time has corresponded to the appearance of cardiovascular syphilis without angina.

Considerable benefit may be expected from vigorous and well adapted specific treatment. Symptomatic improvement may occur even in long standing lesions. As in other forms of syphilitic cardiovascular disease, treatment has been successful only in degree to the prominence given to the specific nature of the disease.

Jaundice and Liver Lesions in West African Yellow Fever

Dr. Oskar Klotz, Toronto: Yellow fever has a sudden onset with headache and prostration, vomiting occurring in the first twenty-four hours and persisting. Sometimes the vomitus is blood streaked or like coffee ground material. Albuminuria appears on the second day. Jaundice varies much. It is constant in some epidemics, but there is a variation in the period of time at which it appears. In many cases jaundice is fairly constant; it appears the third day and persists during convalscence. In the more severe cases, jaundice is delayed until the fifth to the seventh day, or it does not appear until convalescence sets in, when there is intense jaundice. In severe cases with intense intoxication, jaundice may not appear until the time of death and it is often more marked after death. There is also an odd leaden color accompanying the jaundice in severe cases. Studies were made on the tissues of thirty-five yellow fever cases. All cases showed a liver lesion—degeneration with evidence of intoxication of the parenchymatous tissues localized in the midzone of the lobule. The liver cells are destroyed or stand out as hyaline masses, not readily undergoing autolysis. The character of the cell change differentiates it from yellow atrophy and from the results of acute poisoning. The liver cell columns are picked out first. The stroma is intact. There is no thrombosis of the sinus. There is an acutely selective intoxication with reaction of the reticulo-endothelial Kupffer cells. The cells are actively phagocytic, and in seventy-two hours almost all the parenchyma of the liver is destroyed. The Kupffer cells also show severe degeneration with necrobiosis. The reticulo-endothelial cells are injured in other organs, such as the spleen. This looks as if the theory that the reticulo-endothelial cells play a part in the production of bile pigments is correct. When their function is markedly depressed, jaundice may be absent in this disease.

DISCUSSION

Dr. William H. Welch, Baltimore: I am interested to note that Dr. Klotz has brought out evidence that African yellow fever is truly yellow fever. There have been skeptics. Dr. Gorgas was one. He did not like the idea that efforts should have to be extended to the West Coast of Africa, because he had an ideal of extermination of the disease. I am familiar with these cases. Sternberg brought a great deal of valuable material to our laboratory to study. This thrombosis in the midzone of the liver is most interesting. We suspected that there were intracellular areas in the liver resembling protozoa. Methylene and eosin brought these forms out distinctly. It brought out the earliest cell inclusions. Councilman's work on the Kupffer cells, however, was the real contribution to the subject. Dr. Klotz has confirmed Hoffman's statement as to the calcifications in the renal tubules. These have been considered almost pathognomonic, but they may exist in other conditions. I think no one has gone ahead of Councilman's work.

Dr. Oskar Klotz, Toronto: I am in agreement with Dr. Welch in emphasizing the work of Councilman. Our work has been on that basis. The point Hoffman described is a characteristic lesion of the kidney—lime casts in the tubules. That was found in 60 per cent of the West African cases. It was identical with findings in Havana and in South America. These lime casts of the kidney tubules were found in cases of African plague and also in acute poisoning. We were not equipped to carry out blood chemical examinations. There is a better field for this research in western central Africa, where the disease exists in a sporadic form and also in epidemics in which about 1,000 cases occur among, perhaps, 5,000 inhabitants.

(*To be continued*)

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to The Journal in America for a period of three days. No foreign journals are available prior to 1921, nor domestic prior to 1923. Periodicals published by the American Medical Association are not available for lending, but may be supplied on order. Requests should be accompanied *by stamps to cover postage* (6 cents if one and 12 cents if two periodicals are requested).

American Journal of Pathology, Boston

3: 93-178 (March) 1927

*Metastatic or Embolic _Endometriosis,_ Due to Menstrual Dissemination of Endometrial Tissue into Venous Circulation. J. A. Sampson, Albany, N. Y.—p. 93.
*Finer Vascular Channels of Spleen. W. J. MacNeal, S. Otani and M. B. Patterson, New York.—p. 111.
*Islands of Langerhans in Human Pancreas: II. Significance of Variations in Structure. S. Otani, New York.—p. 123.
*Essential Suprarenal Insufficiency (Addison's Disease). E. M. Medlar, Madison, Wis.—p. 135.
Transplantation and Individuality _Differential_ in Strains of Inbred Rats. L. Loeb and H. D. King, Philadelphia.—p. 143.
*Pyorrhea Alveolaris: Rôle of Certain Micro-Organisms Found in Lesions. J. H. Fisher, London, Ont.—p. 169.

Metastatic Endometriosis.—A histologic study was made by Sampson of sections of uteri removed during the various stages of the menstrual cycle, in which the veins had been injected with bismuth. By this means it was demonstrated that there are venous capillaries and large venous sinuses in the uterine mucosa and that the latter empty into similar sinuses (receiving) in the uterine wall. During menstruation, blood escapes from the mucosal vessels into the surrounding tissues, and bits of the mucosa are often set free in the extravasated blood. These studies suggest that this menstrual blood containing fragments of endometrial tissue at times escapes through a ruptured mucosal *sinus* into the venous circulation of the uterus. Sections of misplaced endometrial tissue, wherever situated and irrespective of its origin, also suggest that a like dissemination of fragments of this tissue occurs during menstruation.

Vascular Channels of Spleen.—MacNeal, Otani and Patterson propose a technic for the fixation and preservation of human spleens obtained by surgical splenectomy or at necropsy, which makes possible a more illuminating study of the structure of this organ. For the study of animal spleens a modified perfusion technic is described, in which the *perfusion fluid or experimental injection* material is introduced into a short gastric branch of the splenic artery.

Islands of Langerhans in Human Pancreas.—Otani asserts that the process of hypertrophy of the islands of Langerhans in the adult pancreas is mostly due to transformation and hyperplasia of acinar and centro-acinar cells, the hyperplasia of the island cells proper being relatively insignificant. The acinar cells are able to change into island cells, indicating a genetic relation between islands and acini. The new formation of the islands in the adult pancreas may occur by transformation and hyperplasia of the acinar, centro-acinar or duct cells.

Essential Suprarenal Insufficiency.—In the two cases reported by Medlar there was present a marked hyperplasia of the lymphoid apparatus, including the spleen in both cases and the thymus in the one case in which examination was possible. Neither case showed any clinical or pathologic evidence of hypofunction of the *gonads. In the case of the* female patient, pregnancy and healthy children had ensued. In the case of the male, the testes were functional and appeared normal in the gross and the microscopic examinations.

Pyorrhea Alveolaris; Bacteriologic Studies.—*Endameba gingivalis* was present in direct smears in 95.5 per cent of 201 cases of pyorrhea examined by Fisher. Evidence is submitted that this ameba is a harmless parasite. *B. fusiformis* and spirilla were found in the smears from all cases of pyorrhea studied, and in all the normal gums. *Streptococcus viridans* was present in each of thirty cases of pyorrhea examined culturally. Hemolytic streptococci were not present in any of the cases examined culturally, nor were hemolytic influenza bacilli.

American J. Roentgenol. & Rad. Therapy, New York

17: 305-404 (March) 1927

*Roentgenology of Alimentary Tract of Medical Student. T. W. Todd, Cleveland.—p. 305.
*Cholecystography: Oral Administration of Sodium Tetraiodophenolphthalein. J. S. Sproull, Haverhill, Mass.—p. 316.
*_Pineal Shadow as Aid in Localization of Brain Tumors. J. H. Vastine,_ Philadelphia, and K. K. Kinney, Willimatic, Conn.—p. 320.
Metallic Roentgen Tube (Philips Metalix) and Determination of Permeability of Its Walls to Roentgen Rays. N. A. Podkaminsky, Charkow, Ussr.—p. 324.
New Uniform Potential Deep Roentgen-Ray Therapy Apparatus. A. Mutscheller, New York.—p. 328.
Inoperable Ovarian Tumor Treated by Method of E. G. Mayer: Roentgen Therapy _Alone Ineffective; Combined with Glucose Injections_ Yielded Desired Effect; Radical Operations. G. Holzknecht, Vienna.—p. 332.
Radiotherapy of Cancer of Cervix at Radium Institute, Paris, France. M. Lenz, New York.—p. 335.
Carbon Arc and Flame Lamps in Medicine and Surgery. H. Goodman, New York.—p. 342.

Roentgen-Ray Anatomy of Alimentary Tract.—Todd made a roentgenologic study of the normal alimentary tract in healthy young male students. He says that all parts of the tract are exceedingly sensitive to emotional or nervous conditions. These influence different parts of the tract in divers directions. The stomach becomes atonic in outline, though not in movement or in emptying time. The duodenum shows pseudostasis. The transverse colon exhibits a spasm which may absolutely inhibit the onward passage of its contents. The sites of the cardia and pylorus are affected in similar manner, though *not so greatly as are the positions of the* greater curvature in the pyloric vestibule and the gastric tube. The normal position of the small intestine in the living individual, whether upright or horizontal, is in the lower abdomen and true pelvis; its disposition is in ladder coils. Peristalsis in the lower ileum may be exceedingly slow in spasm of the transverse colon, one wave taking half an hour to complete its cycle. The proximal colon (cecum, ascending colon, transverse colon) exhibits a peristaltic wave like those of the stomach and the small *intestine. Its rate of progress in the* transverse colon is about half that of stomachic peristalsis.

Cholecystography.—Sproull administers the dye in cream of wheat, giving 2 Gm. to patients of 150 pounds (68 Kg.) or under, and 3 Gm. to patients weighing more than 150 pounds. No special meal to empty the gallbladder is advised, and no cathartic preparation is given. The dye is dispensed to the patient in plain gelatin capsules, each containing 0.5 Gm. of the dye. At 8 p. m. all of the medicine contained in these capsules is added *to four (or six) tablespoonfuls of cooked* cream of wheat (cold). Nothing should be taken after midnight. At 8 a. m. films are taken, and the patient is dismissed until 1:30 p. m. with instructions to continue the fast from food and drink. At 1:30 p. m. the second series of films is taken, after which the patient is advised to eat a meal rich in fats, consisting usually of a dropped egg on buttered toast, a pudding with cream, and a cup of cocoa with cream, and to report two hours after for a third film. The method is said to yield excellent results. Of twenty-three patients studied, only three complained of nausea. Two vomited a little. Three had slight diarrhea. None were seriously inconvenienced.

Pineal Gland and Brain Tumors.—In endeavoring to establish a normal variation in the position of the pineal gland, Vastine and Kinney examined 350 skull films essentially negative for intracranial lesions. Two hundred of the films showed calcification of the pineal gland. The gland was displaced in 51 per cent of the patients with meningiomas. Acoustic neuromas were seen to cause displacement in 22 per cent of the cases. Hydrocephalus per se was observed to produce a displacement in 13 per cent of the cases. Pituitary adenomas were rarely seen to cause a change in position of the gland, displacement being observed in only 10 per cent of the cases. Intracranial hemorrhage caused displacement in two cases.

California and Western Medicine, San Francisco

26: 433-592 (April) 1927

Blood Transfusion in Pernicious Anemia. E. H. Falconer, San Francisco.—p. 465.
*Chronic Appendicitis. H. E. Butka, Los Angeles.—p. 467.
Diseases and Abnormalities of Female Urethra. W. E. Stevens, San Francisco.—p. 471.
*Insulin Treatment of Diabetic Coma. W. H. Leake, Los Angeles.—p. 475.
Perforated Ulcer of Duodenum. E. Butler and E. Carlsen.—p. 478.
Control of Urinary Hemorrhage. P. A. Ferrier, Pasadena.—p. 480.
Diagnosis of Genital Lesions. H. J. Templeton, Oakland.—p. 482.
*Treatment of Erysipelas by Roentgen Ray. J. E. Harbinson and J. D. Lawson, Woodland.—p. 485.
Congenital Atresia of Duodenum: Case. C. V. Thompson, Lodi.—p. 487.
Syphilis: When Is It Cured? I. R. Bancroft, Los Angeles.—p. 489.
Hypophysis Versus Hypothalamus. H. Lisser, San Francisco.—p. 490.
Staphylococcus Septicemia: Case. A. C. Reed and F. E. Stiles, San Francisco.—p. 492.

Chronic Appendicitis.—In Butka's opinion chronic appendicitis often is a clinical condition resting more on a functional than a pathologic basis. Obliterative and atrophic appendixes are the result of previous acute pathologic processes, and are not found in increased numbers in cases diagnosed clinically as "chronic appendicitis." The presence of eosinophils in the mucosa of the appendix is not an indication of chronic appendicitis, but is probably a link in the defensive mechanism and is normal. Eosinophils and leukocytes in the submucosa and muscularis are positive evidence of inflammatory changes in the appendix. Chronic appendicitis cannot be determined in more than an extremely small percentage of instances by the histologic examination alone. Complete data on gross conditions seen at operation are essential to a correct diagnosis.

Insulin Treatment of Diabetic Coma.—Fifty-three cases of diabetic coma are reported by Leake. Thirty-seven of these patients died. Eight died within twelve hours after admission. Twenty of the thirty-seven patients who died had grave complications, which were discovered at the time of examination or at necropsy. The highest blood sugar noted was 625 mg. per hundred cubic centimeters of blood; the lowest, 181 mg. Two patients had extremely low plasma carbon dioxide combining power, 9.9 volumes per cent; one recovered. One patient was admitted on three separate occasions in coma, recovery ensuing each time; another was admitted twice in coma, recovering each time, and one, a child aged 2½ years, died a few hours after his second admission for diabetic coma. Of the eleven patients who had been under insulin treatment prior to the onset of coma, only five recovered. The smallest quantity of insulin required to restore a patient to consciousness was 15 units in a child 2½ years of age. Many of the patients who received large doses of insulin remained stuporous for several days. Leake has found it unnecessary to administer more than 200 units to the average coma patient during the first twenty-four hours, but would not hesitate to give five times that amount if indicated. In addition to the liberal use of insulin, buffered with carbohydrate, the treatment of diabetic coma consists mainly in forcing fluids, warmth, elimination and stimulation with caffeine sodiobenzoate and digitalis. Not more than 25 Gm. of sodium bicarbonate should be administered daily.

Roentgen-Ray Treatment of Erysipelas.—Roentgen-ray therapy for erysipelas is regarded by Harbinson and Lawson as being a valuable form of treatment. Relief is obtained generally within twenty-four hours. The febrile period is shorter than in infections of equal severity treated by other measures, and the usual length of illness is shortened. There are, possibly, fewer complications and less chance of spread than in other forms of treatment. There is no pain or discomfort attending the treatment. Advanced, serious cases of erysipelas involving fairly large areas, with high temperature and general infection, may be treated successfully.

Georgia Medical Association Journal, Atlanta

16: 116-149 (April) 1927

Thyroid Diseases. T. C. Thompson, Vidalia.—p. 116.
Prostatic Surgery. J. W. Shearhouse, Savannah.—p. 122.
Treatment of Diabetic Coma. T. E. Rogers, Macon.—p. 124.
Gastric and Duodenal Ulcer: Management. J. B. Fitts, Atlanta.—p. 128.
Stricture of Urethra. W. P. Jordan, Columbus.—p. 131.
Midwife Problem. O. R. Thompson, Macon.—p. 135.

Journal of Bone and Joint Surgery, Boston

9: 217-380 (April) 1927

Central Sarcoma of Bone. J. C. Bloodgood, Baltimore.—p. 217.
*Back Injuries in Industrial Employees. R. F. Herndon, Springfield, Ill.—p. 234.
Results of Davis Method of Reduction of Congenital Hip Dislocation. D. P. Willard, Philadelphia.—p. 270.
*Specific Causative Factors of Multiple Infective Arthritis. L. G. Hadjopoulos and R. Burbank, New York.—p. 278.
Tuberculous Diaphysis. H. Ragolsky, Middleboro, Mass.—p. 286.
Bilateral Defect of Femoral Heads. C. W. Peabody, Detroit.—p. 288.
Treatment of Osteomyelitis. L. Thornton, Atlanta, Ga.—p. 294.
Radiography During Manipulation for Closed Reduction of Congenital Dislocation of Hip. S. W. Boorstein, New York.—p. 302.
Osteomyelitis of Scapula. G. A. Williams, Atlanta, Ga.—p. 308.
Histogenesis of Cartilage. H. T. Jones, Rochester, Minn.—p. 310.
Indications for Operative Treatment of Congenital Equinovarus Club-Foot. L. Ombredanne, Paris.—p. 315.
Cyst of External Semilunar Cartilage. S. Kleinberg, New York.—p. 323.
Lateral Subastragaloid Dislocation. H. D. Sonnenschein, New York.—p. 328.
*End-Results of Arthroplasty of Hip Joint. W. C. Campbell, Memphis, Tenn.—p. 331.
Surgical Treatment of Traumatic Spondylolisthesis. J. C. Wilson, Los Angeles.—p. 346.

Back Injuries in Industrial Employees.—Herndon has made a study of 941 consecutive cases of back injuries in industrial employees. Sprain occurred in 498 cases. About two thirds of the cases were located in the lumbosacral region. In about 11 per cent the condition seemed to be localized about the region of the sacro-iliac joint. The next most frequent site was the middle and upper lumbar regions, where about a fourth of the cases occurred. Contusions occurred in 122 cases. Fracture of the vertebral processes occurred in forty-one cases. In thirty-six cases the fracture involved one or more of the transverse processes. In about half of these the fracture was due to abnormal muscular pull, and in about half to direct violence. Fracture of the vertebral bodies occurred in thirty cases, or 3 per cent. Many of these followed what seemed to be slight accidents, and were surprisingly devoid of symptoms. Chronic deforming arthritis was found in 107 cases. A neurosis was diagnosed in eleven cases. Malingering occurred in thirty-five cases. In ninety-seven cases, the condition of the back and the symptoms complained of seemed entirely attributable to disease. Variations in the spine from the normal or textbook anatomy occurred in 4.8 per cent of the cases in the lumbosacral region. The most common anomalies were split spinous processes, usually of the first sacral vertebra, and sacralization of the fifth lumbar vertebra.

Cause of Multiple Infective Arthritis.—Hadjopoulos and Burbank suggest that the main primary cause of chronic rheumatoid arthritis seems to be a highly selective group of streptococci. In the symptom complex of chronic rheumatoid arthritis, a secondary rôle may be played by diphtheroid bacilli, bacilli of the para-colon group, and *Staphylococcus aureus*.

Arthroplasty of Hip Joint.—Of fifteen arthroplasties for ankylosis of one hip done by Campbell, excellent results occurred in ten. In only two cases has ankylosis recurred. Of the ten with excellent results, ankylosis was probably caused in five by the gonococcus. In all cases there is stability, endurance and efficiency.

Journal of Experimental Medicine, Baltimore

45: 571-751 (April 1) 1927

Comparative Pathology of South African Jagziekte and Montana Progressive Pneumonia of Sheep. E. V. Cowdry and H. Marsh, New York.—p. 571.
*Transplantation of Guinea-Pig Suprarenal and Functioning of Grafts. H. L. Jaffe, New York.—p. 587.
*Influence of Thyroidectomy, Splenectomy, Gonadectomy and Suprarenalectomy on Development of Experimental Atherosclerosis in Rabbits. S. Shapiro, New York.—p. 595.
*Production of Purpura by Derivatives of Pneumococcus: III. L. A. Julianelle and H. A. Reimann, New York.—p. 609.
*Relation of Reticulo-Endothelial System to Formation of Amyloid. H. Smetana, Peking, China.—p. 619.
Changes in Carbon Dioxide Tension and Hydrogen Ion Concentration of Blood Following Multiple Pulmonary Embolism. C. A. L. Binger and R. L. Moore, New York.—p. 633.
Effect of Multiple Emboli of Capillaries and Arterioles of One Lung. C. A. L. Binger, D. Boyd and R. L. Moore, New York.—p. 643.

*Resistance to Flow of Blood to and from Lungs. R. L. Moore and C. A. L. Binger, New York.—p. 655.
Physical and Chemical Properties of Virus of Foot and Mouth Disease: I. P. K. Olitsky and L. Boëz, Strasbourg, France.—p. 673.
Id.: II. P. K. Olitsky and L. Boëz, Strasbourg, France.—p. 685.
*Complement Fixation in Tuberculosis: III. P. A. Lewis, Princeton, N. J.—p. 701.
Immunity to Pneumococcus Mucosus (Type III): I. W. S. Tillett, New York.—p. 713.
*Influence of Light on Transplantable Neoplasm of Rabbit. L. Pearce and W. H. Brown, New York.—p. 727.

Experimental Transplantation of Suprarenal.—Jaffe asserts that the suprarenal cortex of the guinea-pig can be transplanted autoplastically into the abdominal wall and may remain for months, growing to fairly large size. It can be transplanted homoplastically but these transplants usually degenerate after a few months. Small autoplastic transplants are capable of maintaining the life of a completely suprarenalectomized guinea-pig for weeks, and large transplants maintain the animal indefinitely in good condition. Irritation phenomena follow the grafting of suprarenal cortex because of the entrance of epinephrine into this tissue during the manipulation involved in removal of the gland.

Experimental Atherosclerosis.—Evidence is presented by Shapiro which indicates that alimentary hypercholesterolemia acting over a sufficient period of time (in rabbits with all organs intact, 110 days or longer) causes deposition of cholesterol within the intima of the aorta. Deposition of cholesterol within the intima of the aorta initiates the formation of experimental atheromas. Thyroidectomy, splenectomy, and gonadectomy augment hypercholesterolemia, and thereby facilitate and accelerate the development of experimental atheromas of the aorta in rabbits. Sublethal suprarenal insufficiency does not increase the susceptibility of rabbits to the development of such atheromas.

Production of Purpura by Pneumococcus.—Julianelle and Reimann state that the purpura-producing principle of pneumococcus is nonantigenic in the sense that it does not stimulate the formation of antibodies. It does not exist preformed in the cell, but is rather an autolytic derivative, since it is formed only when pneumococci undergo autolysis, and is not found when the autolytic ferments are inactivated. The purpura substance is associated with the proteose fraction of active pneumococcus extracts.

Reticulo-Endothelial Cells Form Amyloid.—The facts presented by Smetana suggest strongly that reticulo-endothelial cells are actively concerned in the formation of amyloid.

Resistance to Flow of Blood by Lungs.—It is shown by Moore and Binger that the embolism of pulmonary arterioles and capillaries produced by the intravenous injection of starch grains results in a dilatation of the pulmonary artery and the right chambers of the heart.

Complement Fixation in Tuberculosis.—Lewis avers that the prolonged extraction of the tubercle bacillus with boiling ethyl alcohol, followed by one or more reprecipitations by chilling the hot alcoholic solution, easily yields a preparation very active as antigen in the complement fixation reaction. This preparation gives a precipitation reaction with a high dilution of the normal blood serum of a number of species. The precipitation reaction presents as a peculiar feature a very long prozone, and is further dependent on a preceding heat treatment of the serum for its demonstration. Since it occurs as a reaction of normal serum, the reaction is apparently not influenced by immunization sufficient to develop moderate specific complement fixation reactions.

Influence of Light on Transplantable Neoplasms.—Experiments are reported by Pearce and Brown in which an environment of constant and continuous light with a wave length from 3,022 to 5,790 angstrom units, supplied by mercury arcs in crown glass, and of constant darkness, have influenced the course and character of a malignant disease of rabbits induced by a transplantable neoplasm. Under the influence of constant light the level of malignancy was lower than in control animals living under ordinary conditions of diffused sunlight. Under the influence of constant darkness the level of malignancy was somewhat lower than in the control animals, but the effect of this environment was modified by the special character of the disease prevailing at this time. The incidence of bone metastases was unusually high, but it was greatly increased in the rabbits kept in constant darkness. These observations furnish experimental evidence in support of the belief that there is a correlation between the external factor of light and the manifestations of an experimental malignant disease.

Journal of Industrial Hygiene, Baltimore

9: 109-168 (April) 1927

Silicosis of South African Gold Mines: Changes Produced by Legislative and Administrative Efforts. W. Watkins-Pitchford, London.—p. 109.
*Experimental Electric Shock. R. W. I. Urquhart, Toronto.—p. 140.

Experimental Electric Shock.—The experiments made by Urquhart confirm the deductions of previous observers as to the cause of death in electric shock; namely, that it may be due to primary cardiac failure, to primary respiratory failure, or to a combination of both. In laboratory animals, when the current traverses the body from the head to a hind limb, about 45 per cent of the deaths are of purely cardiac origin. The remainder of the deaths occur because of failure of the respiratory movements. In these, as in the group in which the current is passed directly through the brain, a condition of profound paralysis or block becomes established in the respiratory, vagus and vasomotor centers. That the block involves these centers is shown by experiments which demonstrate clearly the absence in electrocuted animals of reflex effects normally functioning through them. Since the nerve centers become insensitive to extraneous influences, counter stimulation is not an aid to recovery. No definite histologic changes can be made out in the brain to account for the symptoms. The capillary hemorrhages which occur do not appear to be significant. These experiments also show definitely that when the electric current does not cause charring of nerve structures, the paralysis or block is recovered from and the reflexes return, provided efficient artificial respiration is applied. It is of the greatest importance that artificial respiration be applied early and be maintained for a sufficient length of time. Owing to the nature of the block in the nerve centers, the ordinary tests for death should not be accepted and "nothing less than cooling of the body or the onset of rigor mortis should be considered to be evidence of death."

Kansas Medical Society Journal, Topeka

27: 111-144 (April) 1927

*Study of One Thousand Stillbirths. E. G. Brown, Topeka.—p. 111.
Part-Time Health Officer. O. E. Stevenson, Oswego.—p. 113.
Twenty-Four Hours with General Practitioner. I. J. Wolf, Kansas City, Mo.—p. 115.

Stillbirths in Kansas.—Brown's study shows that the stillbirth rate for Kansas has remained practically stationary for the last ten years. Although a definite study was not made as to the economic status, there is probably a direct relationship between the earnings of the father and the occurrence of stillbirths in his family. Many of the stillbirths could be prevented if the pregnant woman were under adequate medical supervision during the pregnancy.

Minnesota Medicine, St. Paul

10: 205-266 (April) 1927

Cancer of Rectum. R. C. Coffey, Portland, Ore.—p. 205.
More Common Rectal Complications of Pregnancy. W. A. Fansler, Minneapolis.—p. 212.
*Nature of Glossitis in Pernicious Anemia. J. P. Schneider and J. B. Carey, Minneapolis.—p. 214.
Periodic Health Examination. A. M. Snell, Rochester, Minn.—p. 222.
*Osteitis Fibrosa Cystica: Case. W. H. Ude, Minneapolis.—p. 228.
Evolution of Nephritis: II. H. O. Altnow, Minneapolis.—p. 231.

Streptococcus Cause of Glossitis of Pernicious Anemia.—Schneider and Carey have verified Hunter's clinical observations on the tongue phenomena in pernicious anemia. By applying the biopsy method of study to this organ, they have made in the living the same histologic observations that Hunter made in the dead, and have advanced the knowledge of the type of coccus responsible by means of bacteriologic studies, demonstrating in nine specimens the uniform finding of a streptococcus of the viridans group.

Osteitis Fibrosis Cystica.—The case reported by Ude necessitated a very interesting differential diagnosis from osteitis deformans, and adds support to the correlation of the two diseases, as advocated by Knaggs in 1925

Missouri State Medical Association Journal, St. Louis

24: 129-178 (April) 1927

*Colonic Reaction in Food Allergy. C. H. Eyermann, St. Louis —p. 129.
Subclavian Aneurysm: Ligation of Artery at First Portion. W. C G Kirchner, St. Louis —p. 135
*Typhoid Fever. E W. Saunders, St. Louis —p. 138.
Collapse Therapy in Pulmonary Disease J. J. Singer, St Louis —p 139.
Prostatic Hypertrophy. N S Moore, St. Louis —p. 143.
*Chronic Duodenal Inflammation and Traumatization. F E. Diemer, Kansas City.—p. 146.
Pernicious Anemia. A. S. Welch, Kansas City —p. 148.

Colonic Reaction in Food Allergy.—Eyermann reports a case with symptoms simulating gallbladder disease, but with evidences of allergy. The case was studied after the administration of whole wheat bread which never failed to produce gastro-intestinal symptoms, of which pain was the outstanding feature. These attacks were relieved by the hypodermic administration of epinephrine chloride, 1 : 1,000. The roentgen ray revealed spasticity of the colon, which was relieved by the hypodermic administration of epinephrine. Eyermann concludes that this case was one of hypersensitiveness affecting the intestinal musculature, and may be classified in the group usually known as intestinal or abdominal allergy Colonic spasticity may be a factor in the production of abdominal pain in this type of disorder.

Mercurochrome in Typhoid.—Saunders commends the intravenous administration of mercurochrome in the treatment of typhoid, combined with guaiacol inunction. Pure guaiacol rubbed into the skin, in the dose proportioned to age, and always followed by an oil rub to prevent irritation, he says, will reduce the temperature in typhoid and tuberculosis infection, and also in cases of uncomplicated pneumococcus pneumonia.

New Jersey Medical Society Journal, Orange

24: 213 274 (April) 1927

Nutrition of Children A. E. Siegel, Philadelphia —p. 213.
Typhoid Fever. Its Influence on Communities. C. L. Andrews, Atlantic City —p 217.
*Sgambati Urine Test in Peritonitis. R. A. Kilduffe, Atlantic City.—p 221.
Heliotherapy. M. Shapiro, Bayonne —p. 222.
Light as Exciting Agent in Lupus Erythematosus and Other Dermatoses. H. Feit, Newark —p. 226.
Physiotherapy in Hackensack Hospital. S. T. Snedecor, Pathogue, N. Y. —p 229.
Is Civilization Advancing? A. MacAlister, Camden —p 239.

Sgambati Urine Test in Peritonitis.—The Sgambati reaction was applied by Kilduffe to a series of 571 albumin-free urines submitted for routine examination in an endeavor to ascertain whether positive reactions were to be found with undue frequency in the absence of peritonitis, and also, as opportunity offered, to determine the frequency with which it was encountered in the presence of peritonitis. The specimens were obtained from unselected patients with a variety of medical, surgical and gynecologic conditions. In 556 cases not showing clinical or other evidence of peritonitis, negative reactions were found in 554. The two positive reactions occurred in a case of gastric ulcer with hemorrhage in which clinical or other evidence of peritonitis was not obtainable This patient had repeated hemorrhages, as a result of which he died. There were fifteen cases of known peritonitis in addition to the cases noted above, in none of which a positive reaction was obtained.

New Orleans Medical and Surgical Journal

79: 713 796 (April) 1927

*Passing of Malaria C C. Bass, New Orleans —p. 713
Operation of Sheppard Towner Act in Louisiana O. Dowling, New Orleans —p 719.
Foreign Bodies in Intestine. D. I. Hirsch, Monroe, La —p. 728
Meaning of Blood in Urine B M. McKoin, Monroe, La —p 733
Relation of General Hospital to Tuberculosis. J. M. Mosely, Shreveport, La —p 737
Activities of U S. Public Health Service in South. J. McMullen, Louisville, Ky.—p. 743.
Surgical Diagnosis and Treatment. I. Cohn, New Orleans —p. 748
Low or Cervical Cesarean Section. H. E. Miller, New Orleans —p. 753.
Hodgkin's Disease J. A. Lanford, New Orleans —p. 757.

Passing of Malaria.—Bass is convinced that malaria is rapidly passing as an important disease of this country. At the present rate, within another decade or two, it will be a negligible disease, except, perhaps, in certain very limited areas where special circumstances may result in its remaining for a longer time

New York State Journal of Medicine, New York

27: 335 390 (April 1) 1927

*Stricture of Ureter. C K Church, New York —p 335
Treatment of Cancer of Uterine Body H Bailey, New York —p. 348.
*Pregnancy and Diabetes B D Bowen, Buffalo —p 351
Public Health Progress in Twenty Two Countries. E Parkhurst, Albany. —p 358

Stricture of Ureter.—Church presents an analysis of 100 cases of stricture of the ureter, and reviews the literature on this subject

Pregnancy and Diabetes.—In the seven cases reported by Bowen, five patients required insulin before, during and after pregnancy. In these five cases, pregnancy would have been impossible without insulin, as the diabetes was of several years' duration The two patients who did not need insulin were obese Bowen is convinced that diabetes complicated by pregnancy, particularly if the diabetes is mild, can be carried through successfully if the patient is kept under the strictest supervision. In the event of serious complications, the pregnancy should be terminated immediately, preferably by cesarean section

Northwest Medicine, Seattle

26: 181 226 (April) 1927

Calcium Metabolism and Parathyroids. C F Davidson, Seattle —p. 181.
Signs of Endocrine Dystrophies. T. H Coffen and H. P. Rush, Portland, Ore —p 186
*Role of Endocrines in Nervous Diseases R. B Tracy, Seattle —p 188.
Thyroid Gland. L. A. Steeves, Salem, Ore —p. 191.
Goiter J C Moore, Seattle —p 194
Exophthalmic Goiter A. S Graham, Seattle —p. 199
Surgical Versus Roentgen Ray Treatment of Hyperthyroidism G H. Wahle, Boise, Idaho —p 202
Infections of Accessory Nasal Sinuses Cause of Chronic Nontuberculous Bronchitis F B Kistner, Portland, Ore —p 203
Preoperative and Postoperative Care of Cataract Cases L L McCoy, Seattle —p 207
Corneal Ulcers R H Fisher, Rigby, Idaho —p 210
Fibroma of Right Lacrimal Gland L H Klemptner, Seattle —p. 212.
Prolapse of Colon Through Colostomy Opening E. M. Bevis, Tonasket, Wash —p 213.
Fracture of Articular Process of Lower Jaw. C C. Wallin, Lewistown, Mont —p. 214

Rôle of Endocrines in Nervous Diseases.—Tracy asserts that there has never come to his notice for treatment a patient with compulsion, phobia, hysteria, anxiety neurosis or neurasthenia who has not at some time shown a temporary or more often permanent thyroid or suprarenal disturbance About 30 per cent of the cases of psychoneurosis show symptoms of thyroid involvement with evidence of iodine poisoning.

Ohio State Medical Journal, Columbus

23: 271 350 (April 1) 1927

Pneumothorax Treatment of Lung Abscess. J P. Anderson, Cleveland. —p 291
*Acute Sphenoid Sinus Infections W Mithoefer, Cincinnati —p 296.
*Oil Ether (Colonic) Analgesia in Obstetrics L L Hoskins, Cleveland. —p 300
Chronic Osteitis of Semilunar Bone (Kienboch's Disease) J. J. Kurlander, Cleveland —p 303
Teratoma of Ovary Containing Thyroid Tissue. J. A Riebel and F. A. Riebel, Columbus —p 304

Acute Sphenoid Sinus Infections.—Mithoefer is of the opinion that acute sphenoid sinus disease is of frequent ocurrence, but because of the rapid and cursory examination of acute nasal infection an involvement of this cavity is often overlooked.

Oil-Ether Analgesia in Obstetrics.—Hoskins injects one-sixth grain (0 01 Gm) of morphine sulphate in 2 cc of a 50 per cent solution of magnesium sulphate. From twenty to thirty minutes later, a mixture of quinine sulphate, 10 grains (0 65 Gm.) ; alcohol, 2 drachms (7 5 cc) ; ether, 2½ ounces (75 cc), and olive oil, 4 ounces (120 cc.), is injected into the rectum by means of a large glass syringe to which is attached a number 17 size catheter. The latter, being well lubricated with petrolatum, is inserted from 4 to 6 inches into the rectum, the time consumed being from one to two minutes. As a rule, the patient is drowsy in from five to ten minutes, and in from fifteen to twenty minutes she is asleep. This form of analgesia can be used with comparative safety, hospitalization of cases not being necessary for its use. Labor, as a rule, is prolonged in multiparas, and also occasionally in primiparas. Most primiparas require two or more instillations if analgesia is to be afforded through the second stage of labor. The instillations are best omitted with multiparas, or else given in reduced quantity unless a prolonged or difficult labor is expected.

Philippine Journal of Science, Manila

32: 103 271 (Feb) 1927

Tropical Fusaria. O. A. Reinking, Boston, and H. W. Wollenweber, Berlin.—p. 103.

Physical Therapeutics, Baltimore

45: 117-164 (March) 1927

Treatment of Infantile Paralysis. H. E. Stewart, New Haven, Conn.—p. 117.

Periodic Health Examinations. W. B. Snow, New York.—p. 125.

Use of Static Currents. C. R. Brooke, New York.—p. 139.

Treatment of Diabetic Injuries. F. T. Woodbury, New York.—p. 151.

Surgical Diathermy Hemorrhoid Clamp. W. Bierman, New York.—p. 152.

Society Exper. Biol. & Med. Proc., New York

24: 465-625 (March) 1927

Effects of Synthetic Diets on Fertility and Lactation. E. Tso, New Haven, Conn.—p. 465.

Relationship of Reticulo-Endothelial System to Kala-Azar. C. H. Hu and J. R. Cash, Peking.—p. 469.

Antigenic Character of Denatured Egg Albumin. H. Wu, C. T. Broeck and C. P. Li, Peking.—p. 472

Period of Induction in Blood Clotting. C. A. Mills, Peking.—p. 473.

Action of Pseudo-Ephedrine on Kidney. B. E. Read, C. Y. Pak and P. Mar, Peking.—p. 474

*Presence of Aluminum in Blood. J. W. Mull, D. B. Morrison and V. C. Myers, Iowa City.—p. 476.

Respiratory Function of Swimbladder in Lepidosteus. G. E. Potter, Iowa City.—p. 477.

Hydrogen Ion Concentration and Carbon Dioxide Content of Blood of Parathyroidectomized Dogs. W. F. Wenner and E. Muntwyler, Iowa City.—p. 480.

Metabolic Rate Differences in Amblystoma Larvae. O. M. Helff, New Haven, Conn.—p. 482.

Effect of Some Capillary Active Substances on Permeability of Collodion Membranes. E. R. Norris, Iowa City.—p. 483.

*Cough as Factor in Chronicity of Experimental Lung Abscess. C. M. Van Allen, R. A. Fox and H. G. Colle, Iowa City.—p. 485.

*Skin Reacting Substances in Filtrates of Cultures of Eberthellia Typhi. M. S. Fleisher and E. J. Tierney, St. Louis.—p. 490.

*Fat Embolism. E. P. Lehman, St. Louis.—p. 491.

Action of Aldehydes on Histamine and on Active, Histamine-Like Substances Produced by Gas Bacillus. A. I. Kendall, St. Louis.—p. 492.

Pathologic Changes in Arteries Following Partial Denervation. A. H. Kerper and W. D. Collier, St. Louis.—p. 493

Overgrowth of Connective Tissue Cells in Infected Wounds. M. T. Burrows, St. Louis.—p. 495.

*Bacteriologic Characteristics of Monilia Found in Pernicious Anemia and Other Pathologic Conditions. O. Garcia, C. Carcia, N. Boyce and G. O. Broun, St. Louis.—p. 497.

*Simultaneous Cholecystography and Determination of Liver Function. W. H. Cole, St. Louis.—p. 500.

Effect of Potassium Iodide and Thyroid Extract on Thyroid Gland of Guinea-Pig. S. H. Gray, F. L. Haven and L. Loeb.—p. 503.

Effect of Carbon Arc Radiation on Circulation in Dog. H. Laurens and H. S. Mayerson, New Orleans.—p. 506.

Action of Bacilli of Paratyphoid, Dysentery and Metadysentery Groups on Various Starches. A. Castellani, New Orleans.—p. 509.

"Symbiotic Fermentation Phenomenon": Its Use in Differentiation of Micro-Organisms and Identification of Carbon Compounds. A. Castellani, New Orleans.—p. 511.

Use of Ionized Gas Electric Lamps as Recorders in Measuring Velocity of Pulse Wave. R. H. Turner.—p. 516.

*Immunity to Measles. J. H. Musser, New Orleans.—p. 518.

*Etiology of Measles. C. W. Duval and R. J. Hibbard, New Orleans.—p. 519.

*Experimental Production of Carcinoma-Like Epithelial Metaplasia in Mammary Gland of Dog. W. H. Harris, New Orleans.—p. 522.

Experimentally Induced Large Variations in Urinary Proteins in Bright's Disease, Particularly in Nephrosis. H. Berglund and G. Medes, Minneapolis.—p. 528.

Correlation of Loaf Volume with Peptizing Action of Salts on Wheat Flour Proteins. R. A. Gortner.—p. 530.

Physiologic Consideration of Sphincter of Ductus Choledochus. F. C. Mann and G. M. Higgins, Rochester, Minn.—p. 533.

Problem of Seedling Mortality. J. A. Harris, Minneapolis.—p. 534.

Decorticate Rigidity. N. J. Berkwitz, R. E. Morris, F. H. Scott and J. C. McKinley, Minneapolis.—p. 536.

*Carbohydrate Metabolism of Suprarenalectomized Rats. C. F. Cori and G. T. Cori, Buffalo.—p. 539.

*Bacteriologic Studies in Acute Rheumatic Fever. K. E. Birkhaug, Rochester, N. Y.—p. 541.

Apparent Effect of Diphtheria Toxin on Growth of Bacteria. J. M. Sherman, C. N. Stark and P. W. Stark, Ithaca, N. Y.—p. 545.

*Destruction of Botulinum Toxin by Intestinal Bacteria. J. M. Sherman, C. N. Stark and P. W. Stark, Ithaca, N. Y.—p. 546.

Labile Sulphur of Insulin. V. du Vigneaud, Rochester, N. Y.—p. 547.

Study of Muscular Activity of Intestinal Segment During Perfusion Through Its Lumen. J. B. Polansky, Rochester, N. Y.—p. 548.

*Depancreatized Dogs Kept Alive Several Months with Insulin Administered by Stomach Tube. J. R. Murlin, Rochester, N. Y.—p. 549.

Antagonism of Pressor Action of Ephedrine by Cocaine. F. de Eds, San Francisco.—p. 551.

Specificity of Hepatic Anaphylatoxins. W. H. Manwaring, H. D. Marino, T. C. McCleave and T. H. Boone, San Francisco.—p. 553.

Anaphylactic Detoxication of Specific Proteins. W. H. Manwaring, H. D. Marino, T. C. McCleave, T. H. Boone and E. V. Orsborn, San Francisco.—p. 554.

Toxic Substances in Friedländer's Bacillus Cultures. B. L. Friedlander and P. Schoenholz, San Francisco.—p. 555.

Pharmacology of Veratrum Californicum. P. J. Hanzlik and F. de Eds, San Francisco.—p. 557.

Dissociation Constants of Hexosephosphoric Acids. L. Irving and E. Fischer, Frankfurt a. Main, Germany.—p. 559.

Influence of Thyroid and Insulin Treatment on Lactacidogen Synthesis in Muscle. L. Irving and H. J. Deuticke, Frankfurt a. Main, Germany.—p. 559.

Induction of Precocious Sexual Maturity in Mouse by Daily Pituitary Homeotransplants and Heterotransplants. P. E. Smith and E. T. Engle, San Francisco.—p. 561.

Regeneration of Rodent Peridental Membrane. T. D. Beckwith, A. Williams and W. C. Fleming, San Francisco.—p. 562.

Pulse Pressure, Its Probable Relationship to Stroke Volume. J. M. Read, San Francisco.—p. 564.

Use of Cathode Ray Oscillograph for Electrocardiography. W. Dock, San Francisco.—p. 566.

Transformation of Lymphocytes of Thoracic Duct into Polyblasts (Macrophages) in Tissue Culture. W. Bloom, Chicago.—p. 567.

*Development of Nongranular Leukocytes (Lymphocytes and Monocytes) Into Polyblasts (Macrophages) and Fibroblasts in Vitro. A. A. Maximow, Chicago.—p. 570.

Experimental Obstruction of Mesonephric Ducts. E. A. Boyden, Chicago.—p. 572.

Relations Between pH, Agglutination and P. D. with Bacterium Phaseoli Sojense. I. S. Falk, C. G. Sharp and G. K. K. Link, Chicago.—p. 576.

Production of Toxic Substances in Vitro by Fusarium Lycopersici. B. E. Kane and G. K. K. Link, Chicago.—p. 578.

Organic Chlorides of Tissues and Possible Relation to Gastric Hydrochloric Acid Formation. M. E. Hanke and P. B. Donovan, Chicago.—p. 580.

Postural Apnea in Duck. T. Koppányi and N. Kleitman, Chicago.—p. 582.

Regulation of Flow of Bile: III. Rôle of Gallbladder. G. E. Burget, Chicago.—p. 585.

What Causes Psychic Secretion of Saliva in Dog? N. Kleitman, Chicago.—p. 585.

*Effect of Intraperitoneal Magnesium Sulphate on Parathyroidectomized Rats. F. T. Jung and F. Cook, Chicago.—p. 586.

*Effect of Venostasis on Heart Failure with Particular Reference to Cardiac Asthma. C. S. Danzer, New York.—p. 588.

Morphologic and Chemical Studies of Blood in Chronic Duodenal Obstruction. B. N. Berg, A. Wuorinen and J. W. Jobling, New York.—p. 590.

Toxicity of Filtrates of Staphylococcus Aureus from Human Infections and from Normal Nasopharynx. F. A. Stevens and L. Carp, New York.—p. 592.

*Filtration Experiments with Bacteriophage Employing Physiologic Filter: Pia, Dura and Arachnoid. E. B. McKinley and M. Holden, New York.—p. 595.

*Liver Injury in Acute Alcoholic Poisoning. R. P. Wallace, New York.—p. 598.

Effect of Antipneumococcus Serums on Leukocytes in Vitro and on Agglutination of Red Blood Cells. J. G. M. Bullowa, M. B. Rosenbluth and A. K. Merkin, New York.—p. 600.

New Agglutinable Factor Differentiating Individual Human Bloods. K. Landsteiner and P. Levine, New York.—p. 600.

Extraction of Precipitable Substances of Bacilli. J. Furth, New York.—p. 602.

Antigenic Composition of Water Extracts of Tubercle Bacillus. L. Dienes, Asheville, N. C.—p. 603.

Local Sensitiveness of Tuberculous Guinea-Pigs Against Egg White Similar to Arthus Phenomenon. L. Dienes and E. W. Schoenheit, Asheville, N. C.—p. 606.

Permeability of Placenta of White Rat to Specific Hemolysin. C. M. Boucek, Pittsburgh.—p. 607.

Hormone Content of Placenta and Chorionic Membranes. E. Allen, Columbia, Mo.—p. 608.

Degeneration in Vitro of Leukocytes and Connective Tissue Cells Under Influence of Light. W. R. Earle, Nashville, Tenn.—p. 611.
Experimental Production of Showers of "Nonmotile" Leukocytes. L. A. Beard and J. W. Beard, Nashville, Tenn.—p. 614.
Relation of Calcium to Toxicity of Carbon Tetrachloride in Dogs. A. S. Minot, Nashville, Tenn.—p. 617.
*Pharmacology of Ergothioneine. M. L. Tainter, Baltimore.—p. 621.
Automaticity and Mechanical Work in Anoxybiontic State of Frog's Heart: Quantitative Estimation of Natural Excitations. L. Asher, Berne, Switzerland.—p. 622.
Ionization of Calcium Citrate. M. J. Shear and B. Kramer, New York. —p. 624.

Presence of Aluminum in Blood.—Analyses for aluminum have been made by Mull et al. on the blood of thirteen miscellaneous hospital cases and on pig's blood. In all instances the amount of aluminum was less than 0.2 mg. per hundred cubic centimeters. When larger quantities of blood (from 10 to 30 cc.) were used, the results appeared to be somewhat lower. Excellent recoveries of added aluminum have been obtained.

Cough and Lung Abscess.—The experimental data reported by Van Allen et al. indicate: (1) that in dogs an infected embolus in the lung does not always result in abscess, at least when this strain of organism is used; (2) that the *disease is characterized by absence of cough and rapid healing*, and (3) that when the factor of cough is supplied, the cavities which form may be much larger and may persist much longer.

Skin Reacting Substances of Typhoid Bacillus.—Fleisher and Tierney report that following the injection of 0.1 cc. of the filtrate of a broth culture of typhoid bacilli intracutaneously in the arm of a human being, there appears in from twelve to twenty-four hours a reaction similar to that produced by the injection of *Streptococcus scarlatinae* toxin. The reaction fades after from twenty-four to forty-eight hours, but may leave a slight pigmentation. The reactions produced in subjects who neither had had typhoid nor were ever immunized against typhoid are very variable. No evidence of any ability to inhibit the local reaction was noted in persons who had had typhoid, or who had been immunized against typhoid. In individuals with typhoid, the reaction to the injection of the filtrate was markedly diminished (as compared with weakly reacting normal individuals) or was negative. During the early period of the disease the reaction might be distinct; in the second or third week the reaction was usually diminished or negative. After convalescence, the reaction began again to become positive. The ability of the organism to neutralize the local action of the typhoid filtrate was apparently evanescent, and confined to the actual period of the disease.

Fat Embolism.—Experiments are reported by Lehman showing that certain artificial emulsions can be broken down by the addition of necrotic muscle extract, peptone and histamine, besides other substances. It is emphasized that no significance has heretofore been placed on the physical state of the normal fat in the blood stream. The possible relationship of clinical fat embolism to the presence of protein split products in the blood stream is suggested by the breaking down of artificial emulsions by these substances.

Monilia and Pernicious Anemia.—This study made by Garcia et al. of the sugar fermentation reactions of the strains of *Monilia* isolated from cases of pernicious anemia shows that all act on dextrose, levulose, maltose, galactose, dextrin and sucrose. The action on lactose, mannite and insulin varies with the different strains. These reactions can be used to distinguish these organisms from various stock strains of yeasts. They resemble closely those given by the stock strains of *Monilia psiliosis*. *Monilia* isolated from other pathologic conditions seems, in general, closely related to the pernicious anemia strains in type of growth and fermentation reactions, although some slight differences are found in many strains.

Cholecystography and Liver Function Test.—Cole uses phenoltetraiodophthalein. The dose is 0.04 Gm. per kilogram of body weight, and is preferably given in the morning intravenously on an empty stomach. The dose need not exceed 2.5 Gm. Lunch should be omitted, but if hunger demands, the diet should be limited to liquids without fats and low in proteins. Water is allowed. Roentgenograms are taken four, eight and twenty-four hours after the injection. A specimen of blood is taken before giving the dye, and one-half hour afterward. Retention of less than 15 per cent of the dye in the blood serum one-half hour after injection of the dye, and less than 4 per cent one hour after injection is considered normal. Retentions of any greater amounts for the specified time are considered abnormal. The largest amounts of retention have been found in patients having cirrhosis with ascites, and may be as high as from 80 to 90 per cent one-half hour after injection. Retentions almost as great have been seen in patients having acute hepatitis with cholangitis, usually with slight jaundice. A mild retention above normal, ranging between 17 and 35 per cent, is found in cases of cholecystitis.

Immunity to Measles.—Musser states that the toxic filtrate of a bouillon culture of organisms isolated by blood culture when injected intradermally into susceptible individuals causes a transient erythema, whereas in persons who have had measles, the skin reaction is negative. This is confirmatory proof that there is a specific, now isolated, organism of measles which produces a toxin that may be used as an index of immunity to the disease.

Etiology of Measles.—In the cultures prepared by Duval and Hibbard from the blood of six patients with measles, a small gram-positive diplococcus was recovered in pure culture on sheep serum agar. The cultivated coccus completely corresponds in all six instances, and also to that of Tunnicliff. In no instance was there encountered any micro-organism other than the coccus described.

Experimental Carcinoma.—Histologic pictures like those of cancer have been produced by Harris by causing deranged epithelial cell relationship through nipple and gland inversion, although its nodules have thus far not demonstrated the usual functional activities of cancer.

Carbohydrate Metabolism After Suprarenalectomy.—The Coris failed to find any marked difference in the carbohydrate metabolism of normal and suprarenalectomized animals. Emphasis is laid on the fact that the inhibition of glycogen synthesis in the liver of insulinized animals is not due to the action of epinephrine. Insulin injections have also been shown to cause a diminution of liver glycogen in animals in the postabsorptive state. A repetition of these experiments on suprarenalectomized mice gave the same result. This phenomenon is, therefore, not connected with an increased discharge of epinephrine.

Bacteriologic Studies of Acute Rheumatic Fever.—From the blood, tonsillar crypts, abscesses, heart vegetations, feces and urine from persons with rheumatic fever and the allied forms of this protean disease, Birkhaug has isolated a new type of nonmethemoglobin-forming streptococcus which constitutes a closely related group of micro-organisms, distinguishable from the *Streptococcus viridans* and *Streptococcus hemolyticus* groups. Among sixty-eight strains of the nonmethemoglobin-forming streptococcus isolated from rheumatic fever, forty-nine strains, or 72 per cent, were found to produce a demonstrable soluble toxic filtrate, slightly weaker in toxicity than that obtainable from *Streptococcus erysipelatis*. About 15 per cent of persons without a history of rheumatic fever, and from 56 to 76 per cent of persons with a history of rheumatic fever gave positive skin reactions within twenty-four hours after the injection of this filtrate. Intravenous and subcutaneous injections in the rabbit of the living nonmethemoglobin-forming streptococcus invariably produced a nonsuppurative polyarthritis, with marked swelling of the joints. Subacute bacterial endocarditis and myocarditis, with a unique and regular tendency to vegetative mitral stenosis, extensive mural vegetations, and occasionally pseudonodular arrangements of multinucleated forms of leukocytes, as well as of polymorphonuclear and mononuclear cells, were encountered. Intravenous and subcutaneous injections of the sterile toxic filtrate rapidly developed polyarthritis of the nonsuppurative form, after repeated injections of increasing doses. The only changes found in the heart of the rabbits injected with the sterile toxic filtrate were those of myocardial degeneration.

Destruction of Botulinum Toxin by Bacteria.—Sherman et al present data which indicate the destruction of botulinum toxin by *B. coli*, *B. communior*, *B. aerogenes* and *Proteus vulgaris*

Insulin Keeps Depancreatized Dogs Alive.—A number of dogs totally deprived of the pancreas and fed on meat have been kept alive by Murlin for periods of from six weeks to four months on daily doses of from 40 to 100 clinical units of insulin in blood serum administered carefully by stomach tube in such a way as to preclude the possibility of absorption from the mouth The effect on respiratory metabolism is immediate

Lymphocytes and Macrophages.—The possibility of the transformation of a small lymphocyte into a macrophage (polyblast) and further into a fibroblast is demonstrated by Maximow.

Magnesium Sulphate Lowers Mortality of Thyroparathyroidectomized Rats.—The high death rate among thyroparathyroidectomized rats is reduced by Jung and Cook by the intraperitoneal injection of magnesium sulphate For a rat weighing 150 Gm, the injection consists of 5 cc of a 1 per cent solution of the crystalline salt Experience has shown that asepsis is unnecessary A normal rat can easily tolerate as many as five hourly injections of this quantity After each injection, manifestations of the well known anesthetic and curare-like actions of magnesium are noted

Effect of Venostasis on Heart Failure.—Danzer checks the circulatory overflow in the periphery by the compression of the veins in the four extremities This is conveniently performed by applying four blood pressure cuffs around the extremities as near to the trunk as possible. These cuffs are all in series and connect with an ordinary blood pressure manometer and rubber bulb The apparatus is termed the "venostat" The cuffs are gradually inflated up to diastolic pressure, and maintained at this level for from ten to twelve minutes They are then very gradually deflated The application of this procedure during a cardio-asthmatic attack relieves the symptoms in about five minutes, and frequently terminates the attack by the time the treatment has been completed Objectively, sonorous and sibilant rales that may be present over the lungs become very faint or disappear entirely In the belief that venostasis unloads the heart sufficiently for recuperation, its effect was tried on clinical cases of heart failure in which large doses of digitalis were required Only far advanced cases were studied Digitalis was not given, and no other treatment besides the restriction of salt and fluid intake was applied Venostasis was produced for from ten to twelve minutes every two hours Marked improvement in the dyspnea resulted Orthopnea disappeared The edema lessened and the water excretion increased—in some cases, it exceeded the fluid intake After a week, however, digitalis had to be given again because of the return of the edema Danzer believes that venostasis is capable of disembarrassing an insufficient heart, and that only in the far advanced cases must digitalis, in addition, be given.

Filtration Experiments with Bacteriophage.—Experiments done by McKinley and Holden indicate that a particular substance such as the bacteriophage is filtrable from the cerebrospinal fluid to the blood stream in rabbits, but not from the blood stream to the cerebrospinal fluid

Liver Injury in Acute Alcohol Poisoning.—The indirect van den Bergh quantitative test for bilirubin, and the quantitative determination of urobiligen in the urine, were applied by Wallace in seventeen cases of acute alcoholic poisoning. There was found an increase in the amount of bilirubin in the blood serum, which persisted for four or five days, with a gradual decline to the normal. Estimations were made. An increase in urobiligen was found ranging in dilutions from 1:90 to 1:350 The urobiligen curve closely corresponded to the bilirubin curve This increase of both bilirubin and urobiligen was directly proportionate to the severity of the poisoning. It is concluded from these observations that in acute alcoholic poisoning there is definite evidence of liver injury, and that this is proportionate to the severity of the poisoning.

Pharmacology of Ergothioneine.—The negative results obtained by Tainter support the earlier conclusion that this substance does not have well marked pharmacologic actions.

Southern Medical Journal, Birmingham, Ala.

20: 257-334 (April) 1927

*Pollen Proteins' Clinical Significance in Hay-Fever. H. S. Bernton, D B Jones and F A. Csonka, Washington, D. C.—p. 257.
Curve of Phenolsulphonphthalein Excretion A. J. Crowell, Charlotte, N C—p 264
*Vegetal Bronchitis Fifteen Cases P Stiles, Birmingham—p. 269.
Ependymal Neoplasm of Median Nerve. J. A. Lanford and I. Cohn, New Orleans—p 273
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*Syphilis of Urinary Bladder B W. Turner, Houston, Texas—p 289.
Supracondylar Fractures of Humerus. A. L Gray, Richmond, Va—p 292
Typhoid Osteitis Two Cases C. C. Garr, Lexington, Ky.—p. 296.
*Pulmonary Teratoma W. H. Slaughter and S. H. Stephens, Mobile, Ala—p 301
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Significance of Blood Pressure in Circulatory Disorders of Extremities. B M Bernheim, Baltimore—p. 311.
Early Diagnosis of Tuberculosis in Children as Means of Controlling Disease H Casparis, Nashville, Tenn—p. 314
Indications for Cesarean Section. J R. Bloss, Huntington, W. Va.—p 317.
Postoperative Cystitis E G Ballenger and O. F. Elder, Atlanta, Ga.—p 321.
Immediate Self Disinfection After Sex Exposure as Public Health Activity. J Hancock, Louisville, Ky—p. 322

Pollen Proteins.—Bernton et al. found that the toxic action of pollen on susceptible individuals is not restricted to the albumin Cutaneous testing has demonstrated a sensitivity of patients to one or more proteins isolated from pollen.

Vegetal Bronchitis.—Stiles points out that the systematic enlightenment of parents and nurses, as well as misguided friends and strangers, to the danger of giving peanuts, watermelon and similar substances to young children would materially reduce the number of these cases. If left untreated, these cases are almost invariably quickly fatal, but if subjected to early bronchoscopy, the prognosis is distinctly favorable

Syphilis of Urinary Bladder.—The six cases observed by Turner have all been tertiary manifestations of the disease: four ulcers and two papillomatous masses with disintegrating processes going on in one. In all cases there was a positive Wassermann reaction; yet all but one patient gave a negative history of syphilis. The symptoms in each case were alike with respect to cystitis, frequency, pain and slow onset.

Primary Pulmonary Teratoma.—This case is reported by Slaughter and Stephens as one of primary pulmonary teratoma of a malignant character, which most likely originated from the pleura in the interlobar space between the upper and lower lobes of the left lung, and invaded both the mediastinum and the left lung.

U. S. Naval Medical Bulletin, Washington, D. C.

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Color Blindness E H H. Old—p 253.
Etiologic Factors in Production of Maxillary Antrum Disease. G B Trible—p 266.
Bureau of Medicine and Surgery's Exhibit, Sesquicentennial, Philadelphia, 1926 R C Holcomb—p 272.
Malaria in Haiti C S Butler and E Peterson—p 278
Institutional Policies as Applied to Year's Dental Activities. J L. Brown—p 288
Recurrence of Inguinal Hernia. K E Lowman—p. 300.
Cerebrospinal Fever. P Richmond—p 304.
Theories Concerning Mechanism of Insulin Effect on Carbohydrate Metabolism H. Phillips—p 309
*Wassermann Reaction Following Bismuth Treatment of Yaws and Syphilis. C D Middlestadt—p 315
Tuberculous Veterans' Bureau Patient. J. D. Blackwood, Jr—p 319.
Ocular Enucleation Cases C B. Camerer and B P. Davis—p. 325.
Treatment of Irreducible Dislocated Lower Jaw of Ninety Eight Days' Duration. Case M. D. Willcutts—p. 331.
Traumatic Rupture of Spleen and Splenectomy Case. L W. Johnson.—p 336
*Diathermy in Shock. G. F. Cottle—p 340.

*Spontaneous Rupture of Heart: Case. G. W. Cooper.—p. 343.
*Mercurochrome, Foreign Protein and Sugar Treatment of Acute Gonorrheal Urethritis. L. H. Williams and G. F. Cooper.—p. 352.
*Glandular Fever with Inguinal Adenopathy. C. C. Yanquell.—p. 358.
*Case of Acquired Hydrocephalus. E. C. White.—p. 361.
*Carcinoma of Stomach with Large Retroperitoneal Tumor. W. H. Whitmore.—p. 365.
*Methenamine in Meningeal Infections. A. E. Brunschwig.—p. 369.
*Reinfection in Syphilis. C. P. Archambeault.—p. 372.
*Bullet Wound of Jaw. P. H. Goldberg.—p. 374.
Pensacola Hurricane. M. J. McCloud.—p. 379.
Hurricane Thrill. E. E. Wells and M. Hennemeier.—p. 383.
Epidemic of Impetigo Contagiosa. C. W. Spofford.—p. 385.

Treatment of Yaws and Syphilis in Haiti.—The treatment given at the Haitian General Hospital for syphilis and yaws consists of 1 grain (0.065 Gm.) of mercury salicylate in a suspension of liquid petrolatum given intramuscularly each Tuesday, and 1 grain (0.065 Gm.) of sodium potassium bismuth tartrate in 2 cc. of freshly distilled water given intramuscularly each Thursday. The sodium potassium bismuth tartrate contains 67 per cent of bismuth. Middlestadt reports the following results: in 60 per cent of the cases, a negative Wassermann reaction; in 16 per cent, a reduction to 1 plus; in 8 per cent to 2 plus, and in 2 per cent to 3 plus; in 14 per cent the reaction remained unchanged. There were four cases of abscess formation. It was found that these conditions were relieved by giving the same amount of the salt in 2 cc. of distilled water instead of 1 cc.

Diathermy in Shock.—Cottle's patient recovered from a most extreme degree of shock resulting from an automobile accident in which he sustained a compound fracture of the leg bones. It is believed that diathermy to the liver region contributed largely to this recovery.

Spontaneous Rupture of Heart.—Cooper reports two cases. In the first case the cause of death was obscure. A necropsy was performed, and the anatomic diagnosis was nontraumatic, spontaneous rupture of the left ventricle of the heart. The contributory cause was chronic myocarditis, with marked fibroid and fatty degeneration. In the second case, the chief complaint was soreness in the chest and cough. The diagnostic impression at the admission examination was chronic myocarditis with passive congestion of the liver, angina pectoris, and arteriosclerosis. The roentgen-ray report showed fusiform dilatation of the aortic arch. The patient died on the morning of the fifth day. At the necropsy, healed tuberculosis of the lungs, chronic diffuse nephritis, arteriosclerosis, coronary sclerosis and occlusion, and spontaneous rupture of the left auricle of the heart (multiple) were found.

Mercurochrome Treatment of Acute Gonorrhea.—The method of treatment with mercurochrome devised by Potter and Redewill was tried by Williams and Cooper in twenty-five cases. Following the injections there was a uniform change in the leukocytes, consisting of a negative phase in which all types of cells, except the eosinophils and lymphocytes, decreased, followed by a positive phase in which these cells decreased and the other cells and the total white count increased. An artificial immunity to infection is apparently established by the injection of these substances, as was evidenced by a rise in temperature, a negative phase followed by positive phase, and an appreciable leukocytosis lasting for some days. Practically the same results were obtained with mercurochrome and milk, without the addition of sugars, but it is recommended that the latter be employed as a protective agency against possible anaphylactic shock.

Glandular Fever.—A clinical case of glandular fever is reported by Yanquell, which is quite unusual in that the inguinal glands were the only ones of the superficial groups involved.

Acquired Hydrocephalus.—In the case reported by White, there was no history of any primary condition, and the complete history of the case comprised only the symptoms of a gradually increasing intracranial pressure. It was only at the necropsy that evidence of a tuberculous meningitis was discovered.

Carcinoma of Stomach and Retroperitoneal Space.—Carcinoma developed in a young man, aged 27; the origin was apparently in the stomach, and the tumor extended through the stomach wall and formed a huge mass in the retroperitoneal space, continuous with the tumor area of the stomach. There were multiple metastases to the liver, gastrohepatic omentum, retroperitoneal glands, and the mesentery. In spite of the huge size of the tumor there were no growth symptoms, and the tumor was not noticed until one month before death; anemia was not present. It was impossible to determine the length of time this tumor had existed, but it certainly was not of recent origin, as there were large necrotic areas with considerable fibrosis.

Methenamine in Meningeal Infections.—It is shown by Brunschwig that methenamine, when administered by mouth in sufficient doses, readily passes into the cerebrospinal fluid. But here free formaldehyde is not liberated, nor does the drug exert antiseptic powers.

Reinfection in Syphilis.—In Archambeault's case the first infection was probably extragenital. Both infections were believed to have been innocently acquired. There were two primary lesions in the second infection.

Curious Case of Bullet Wound of Jaw.—Goldberg's patient was hit in the upper jaw by a bullet. He lost consciousness for two or three minutes. He expectorated a little blood for about thirty minutes. Both central incisors and the right upper canine were broken off at the gum border. The tongue was slightly lacerated in the median line for a distance of one-half inch. The bullet passed through the posterior pharyngeal wall just to the left of median line, and had its exit 1 inch to the left of the sixth cervical vertebra. Except for the loss of three teeth, this patient has no defects in speech, mastication or sensation.

U. S. Veterans' Bureau Med. Bull., Washington, D. C.

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Late Results of Fractures of Long Bones. J. B. Walker.—p. 293.
Origin and Work of United States Veterans' Bureau. R. C. Spier.—p. 315.
*Early Symptoms of Brain Tumor. C. L. Carlisle.—p. 321.
*Etiology of Neurasthenia. H. C. Sharp and J. W. Visher.—p. 329.
Plea for Medical Surveys in Veterans' Bureau Tuberculosis Hospitals. W. D. McFaul.—p. 335.
Importance of Teamwork in Bureau Hospitals. B. B. Edwards.—p. 339.
Heliotherapy in Surgical Tuberculosis. G. O. Bassett.—p. 342.
Passes and Leaves: Medical Problem. S. H. James.—p. 347.
Recent Tests for Liver Functions: Clinical Significance. D. L. Liberman.—p. 350.
Amnesia. C. B. Covey.—p. 356.
Prehistoric and Primitive Dentistry. R. L. Denson.—p. 363.
Congenital Cerebral Arteriovenous Aneurysm. H. W. Baxley.—p. 367.
Neurotrophic Skin Disturbance Occurring in Severe Bronchial Asthma. L. M. Cochran.—p. 371.

Early Symptoms of Brain Tumor.—The four cases of brain tumor reported by Carlisle tend to indicate that the patient's first symptoms for which he is hospitalized may strongly suggest a psychoneurosis of a neurasthenic type; namely, "stomach trouble"; a generalized complaint that "health is failing"; vague disturbances of vision usually dismissed as refractive errors, and complaints of rather mild headaches and a feeling of inability to go on working as usual. Any patient with psychoneurosis of the neurasthenic type, with symptoms relating to the eye and stomach, and with head sensations, including visual hallucinations (especially when on a nontoxic basis), should receive sufficient observation and later reexaminations to exclude or include the triad—choked disk, the vomiting due to an organic brain lesion, and headaches from organic brain lesions (with or without an actual psychosis). Among the earliest symptoms which may make a definite impression on an examiner is that of a visual hallucinosis.

Etiology of Neurasthenia.—Sharp and Visher assert that the so-called functional disorders of irritable heart, pseudo-angina pectoris and paroxysmal tachycardia; irritable colon, constipation, and flatulence; hypotension, hypertension, and angioneurotic edema; menstrual difficulties and disorders of the sexual function, are especially likely to be accompanied by neurasthenic symptoms. Ill defined endocrinopathies, blood dyscrasias, diseases of the genito-urinary tract, quiescent tuberculosis, early diabetes, and focal infections are also frequent etiologic factors.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below Single case reports and trials of new drugs are usually omitted

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*Nutritive Value of Wheat, Paddy and Certain Other Food Grains R McCarrison —p 631
*Effect of Manganese on Growth R. McCarrison —p 641
*Good Diet and Bad One R McCarrison —p 649
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Vegetable Ghee (Vanaspati) Its Food Value D R Thomas —p 659
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Bacterial Efficiency of Mechanical Gravity Filters V Govinda Raju —p 707
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Fertilization and Development of Ovum in Anopheles in Captivity B N Chalam —p 775
Test for Differentiation of Malaria from Kala Azar, Typhoid and Other Fever E C Hodgson A C Vardon and Zorawar Singh —p 779

Experimental Kala-Azar—Sixty experimental animals, subjected to 184 bites from a minimum of 152 *Phlebotomus argentipes* known to be infected with *Leishmania donovani*, have not, in any case, developed kala-azar The presumption of Shortt et al is not that *Phlebotomus argentipes* cannot transmit the disease by its bite, but that the experimental animals used were not sufficiently susceptible to *L donovani* to become infected, except as the result of a more intensive exposure to infection than that to which they were subjected in the experiments

Effect of Quinine on Phosphorus Metabolism.—The results obtained by Hughes and Shrivastava show that quinine in antimalarial doses in man causes a retention of phosphates This fact is evidence of the interference of this drug with the carbohydrate metabolism This interference takes the form of causing an increased output of insulin Therefore, when quinine is administered in large doses over long periods, as is often done in the treatment of malaria, it is acting more or less continually as a stimulant of the pancreatic islets, and as overstimulation of this tissue is known to produce exhaustion, it is not unlikely that in many cases quinine plays a role in the production of a diabetic condition

Nutritive Value of Wheat—McCarrison's experiment demonstrates the high order of the nutritive value of whole wheat and the comparatively low order of the nutritive value of whole rice, a value which depends not only on the quality of their proteins but on their content of vitamins and of certain mineral salts of which one is manganese A diet of whole wheat sprouted grain milk, milk products and green leafy vegetables with meat occasionally, is one on which Indians flourish best and attain to the highest degree of physical efficiency encountered in that country

Effect of Manganese on Growth—McCarrison concludes that the growth promoting properties of whole wheat are in part due to the content of manganese in this cereal However a concentration of one part of manganese to 12 600 parts of food exercises a progressively increasing and retarding influence on growth whereas a concentration of one part of manganese in 617 700 parts of food exercises a markedly favorable influence on growth

Good Diet and Bad One.—McCarrison says that a diet composed of whole wheat milk milk products, sprouted legumes uncooked vegetables and fruit with fresh meat occasionally far surpasses in nutritive value that composed of white bread tea sugar margarine, jam, boiled vegetables and tinned meat to which the common food preservatives—boric acid, formaldehyde vapor and sulphurous acid—are added The former promotes physical efficiency and health, but the latter gives rise to stunting of growth, to physical inefficiency and oftentimes to disease The maladies of which the bad diet is so apt to lay the foundation are lung and gastro intestinal disease

Influence of Syphilis on Leprosy.—Lloyd et al assert that any nonspecific reactions in the latter stages of leprosy are due to experimental factors and are not caused by reagins comparable to those responsible for complement fixation in syphilis They will not, therefore, serve as a basis for any specific serum test for leprosy

Indian Medical Gazette, Calcutta

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Case Typical of Rural Midwifery Practice. C. G. Dhandhukia.—p. 89.
Two Cases of Malaria. S. K. Biswas.—p. 90.

Epidemiology of Cholera.—By means of the "open-bowel" method of culture which was devised by them, Tomb and Maitra have been able to prove that in many localities of an endemic area as many as 35 per cent of the inhabitants are chronic carriers of nonagglutinating vibrios. Efforts to demonstrate the identity of agglutinating and nonagglutinating vibrios found in cases of clinical cholera, while proving that the two vibrios are closely allied serologically, were, however, inconclusive and inconstant in results. Extended examinations of the stools of convalescent patients with epidemic cholera showed that 80 per cent of these persons became chronic carriers of nonagglutinating vibrios, the agglutinating form permanently disappearing in from two to four weeks. After examination of thousands of stools, the authors have been unable to discover one permanent carrier of agglutinating vibrios, and no such carrier has ever been reported by any other observers elsewhere. They therefore conclude that the nonagglutinating vibrio (which is itself capable of causing clinical cholera) takes on the agglutinating characteristic under certain biochemicophysical conditions in the human intestine, the nature of which is at present unknown, and that this mutation or epidemic form is the cause of epidemic cholera. Nonagglutinating intestinal vibrios constitute the reservoir of cholera both epidemic and endemic, the degree of nonagglutinability in a vibrio apparently depending not only on the nature of its surroundings but also on the period of time which has elapsed since it last existed in agglutinating or epidemic form. The nearer to the threshold of agglutinability a nonagglutinating vibrio is, the more closely would it seem to be allied both serologically and epidemiologically to the agglutinating vibrio.

Staining Tubercle Bacilli.—Shunker endorses the use of a half saturated watery solution of picric acid as a counterstain instead of methylene blue. The advantage of the method lies in the fact that the red stained tubercle bacillus shows up much better against a yellow background than a blue one, and it appears to have the additional property of restoring the color to feebly acid-fast bacilli, which would otherwise be invisible or unrecognizable.

Berberine Sulphate in Oriental Sore.—Varma injects 0.25 Gm. of berberine sulphate in 1 cc. of distilled water into the sores. This is followed by some local reaction in the form of congestion and edema, but with very little pain and tenderness, all of which subsided within four days. A week later the infiltration is repeated. A third injection is not required.

Treatment of Ascaris Infestation.—Row gave his patient 5 grains (0.32 Gm.) of santonin. The boy passed round worms both orally and by rectum for a week, the total number passed being 164. A second dose of santonin was given on the fourth day in order finally to eradicate the infection, and the patient made an uneventful recovery.

Large Ovarian Cyst.—The tumor in Pillai's case weighed 20 pounds (9 Kg.). It was a large multilocular cyst of the left ovary.

Irish Journal of Medical Science, Dublin

6: 145-192 (April) 1927

*Human Oocyte Showing First Polar Body and Metaphase Stage in Formation of Second Polar Body. A. F. Dixon.—p. 149.
*Polar Bodies. J. B. Gatenby.—p. 152.
*Epistaxis as Symptom of Toxemia of Pregnancy. B. Solomons and T. G. Wilson.—p. 154.
*Rupture of Uterus Treated by Plugging Rent: Recovery. B. Solomons. —p. 157.
*Case of Salpinovesical Fistula. A. H. Davidson.—p. 159.
Antepartum Hemorrhage. L. Cassidy.—p. 161.

Structure of Ripe Human Ovum.—Dixon reports the examination of a ripe human ovarian follicle containing an oocyte in which the first polar body was present, and in which the chromosomes of the remaining nucleus were in the metaphase of the mitosis which would have given rise to the second polar body. The specimen was removed during the course of an operation from the body of a young adult woman.

Polar Bodies and Sex Determination.—Through a study of the spermatogenesis of man, and a comparison of this with the sperm formation and oogenesis of lower mammals and invertebrates in general, Gatenby has shown that in human beings sex determination is caused by the spermatozoa, which are of two types. The eggs are all the same so far as sex is concerned, and during polar body formation the two large sex chromosomes are separated, one going to the egg, one to the polar body. In this case, also, one gets the accidental segregation of the maternal father's or mother's sex chromosome in the egg. Thus, at polar body formation, it is determined whether the new child will have those qualities which are sex linked which come from the maternal grandfather or the grandmother.

Epistaxis Symptom of Toxemia of Pregnancy.—The epistaxis in this case was severe and could not be checked; hence, Solomons and Wilson decided to do an abdominal hysterotomy under stovaine anesthesia in the twenty-ninth week of pregnancy. A living fetus was extracted, but it died on the following day. The mother recovered.

Plugging Ruptured Uterus.—Solomons suggests that the treatment of ruptured uterus by plugging the rent with gauze, according to Tweedy's method, be applied more often instead of laparotomy.

Salpingovesical Fistula.—In Davidson's case tuberculous disease of the uterine adnexa caused adhesion to the bladder, with the establishment of a fistulous communication later. Davidson found only three similar cases on record.

Lancet, London

1: 583-636 (March 19) 1927

*Problems in Treatment of Neurosyphilis. J. L. Birley.—p. 583.
*Cardiac Dyspnea: II. F. R. Fraser.—p. 589.
*Chlorides of Gastric Contents: Relation to Free Acidity. S. Miller and F. B. Smith.—p. 593.
*Postpartum Avulsion of Uterus: Recovery. R. H. Boggon.—p. 595.
Value of Present Methods of Treating Leprosy. H. W. Wade and C. B. Lara.—p. 597.
Severe Chorea Associated with Tapeworm. J. Burnet.—p. 600.
*Case of Petechial Hemorrhages on Lungs and Heart of Unborn Child. S. Smith.—p. 601.
Two Cases of Streptococcal Empyema Treated by Continuous Aspiration. H. F. Turney.—p. 601.

Treatment of Neurosyphilis.—Birley expresses the belief that arsphenamine and its allied compounds, in the treatment of syphilis, other than in the Wassermann negative primary stage, has not succeeded in protecting the human nervous system from syphilis; on the other hand, there is no evidence that it has increased the incidence of neurosyphilis. The influence of arsenical compounds in modifying the incidence, time of onset and character of neurosyphilis remains to be determined. The pathologic changes that occur in the nervous system, including its coverings, and in the cerebrospinal fluid, from the time of infection up to the development of late parenchymatous neurosyphilis, and the mutual relations which exist between these changes, are still largely a matter of conjecture. The value of antisyphilitic treatment in arresting the progress of tabes and allied conditions is difficult to estimate, owing to their liability to undergo spontaneous arrest. The Wassermann reaction is not biologically specific, and its value as a guide to and indication for treatment cannot, therefore, be regarded as absolute. The nonspecific treatment of general paralysis has, according to the published figures, achieved better results than any previous method. A majority of the unsolved problems of syphilis are

[illegible] Medical College

intimately bound up with the increasing immunity to syphilis of the civilized peoples, together with the lack of any method by which this immunity can be estimated.

Cardiac Dyspnea.—The study of arterial blood in nineteen cases of cardiac dyspnea leads Fraser to the conclusion that (*a*) in cases of extreme congestive failure and of pulmonary disease in addition to heart failure, faulty elimination of carbon dioxide and faulty absorption of oxygen in the lungs may be factors in the production of increased respiratory activity; and (*b*) in patients near death, retention of fixed acids and raised hydrogen ion concentration may be factors in the production of increased respiratory activity, but that (*c*) in cases of cardiac dyspnea other than these, the condition of the arterial blood cannot account for the dyspnea, and is, indeed, indicative of the presence of increased pulmonary ventilation to which the changes in the arterial blood are secondary. Since the changes in the arterial blood due to the conditions (*a*) and (*b*) would mask the effect of such increased ventilation, it is reasonable to suppose that there is a cause of increased respiratory activity present in all cases of heart failure, which is independent of the quality of the blood supplied to the respiratory center

Chlorides of Gastric Contents.—According to Miller and Smith, the mean curves of total chlorides in all grades of gastric acidity are similar in shape, differing only in magnitude. The mean curves of the inorganic chlorides have the same general form and relation to time of digestion as those of the total chlorides, but agree much more closely in magnitude In hyperchlorhydria, the inorganic chlorides tend to remain low or to rise only very slightly. On the basis of the figures of the chlorides, there does not seem to be a clear definition of the so-called achylia of Addison's anemia, as distinct from other cases of achlorhydria

Postpartum Avulsion of Uterus—The case reported by Boggon is of interest, as it reveals how completely a woman may recover from the effects of so serious a disaster as the tearing out of the whole uterus after delivery. Four previous confinements had been normal. In the last confinement, the placenta was removed manually. In addition, there had been two miscarriages. The medical man had apparently been called in when labor was well advanced He found a breech presentation The membrane ruptured early, and a full-time living child, stated to be 12 pounds (5.4 Kg.) in weight, was born after a normal labor of eighteen hours. There was some delay in the birth of the placenta, and when it did come "the uterus, placenta, and a tumor were so inextricably mixed up and the neck of the uterus was so friable" that the attending physician "removed them all" by cutting through such attachments as remained. On the third day after delivery, the physician requested the admission of the patient. She did not complain of great pain, but had a certain amount of abdominal discomfort together with severe thirst. The abdomen was slightly distended in the lower part and tender; the uterus was not palpable. There was a bloodstained discharge, not much more in amount than the normal lochia, and not offensive. As there was no hemorrhage, and it was three days since delivery, the patient was merely given a sedative and propped up in bed. On the following day, she complained of abdominal pain. A constant flow of bright blood from the vagina, accompanied by a rise in the pulse rate, indicated the need for further investigation. At the top of the vagina was a ragged hole with coils of intestine lying above. On the right of the tear was a piece of decomposing muscular tissue, about 1 inch square, apparently all that remained of the uterus. The hole in the vault and the vagina were lightly plugged with gauze wrung out of 1:1,000 solution of formaldehyde and the patient was put back to bed. There was no further bleeding and the plug was removed four days later. The patient made an uneventful recovery.

Petechial Hemorrhages on Lungs and Heart of Unborn Child.—Smith reports the case of a young woman, from eight to eight and a half months pregnant, who received a blow on the head from a heavy stick and died shortly after. The following day, the fetus was removed from the uterus. On examination of the thoracic organs of the child, numerous petechial hemorrhages were observed on the anterior surface of the heart and aorta, and over the right and left lung. They were scattered over the whole surface of the lung, but were more intense on the surfaces in contact with the heart and on the interlobar surfaces. The hemorrhages varied in size from small pin-pricks to spots the size of a pin's head. The surface of the left lung had a slightly mottled appearance in the upper lobe, as a whole, the lungs looked as though they had never respired. They sank when placed in water. On microscopic section, no trace of vesicles could be observed, but under the pleura and scattered throughout the whole of the lung tissue there were numerous hemorrhages. These were by no means petechial, but took up quite a large part of the section. Numbers of greatly dilated capillaries could be observed, and these were in many cases surrounded by blood. In certain places, hemorrhages could be traced from the lung tissue to the pleura. There was no sign of organization of the blood or other change in the tissues of the lung. The other organs of the child and the organs of the mother were healthy.

Archives de l'Institut Pasteur de Tunis

15: 289-384 (Dec.) 1926

*Filtrable Form of Bacillus Pestis E. Burnet.—p. 292.
*Search for Bacterium Melitensis in Domestic Animals. H. Torstenson.—p. 305
The Non Acid Resisting Phase of the Tuberculous Micro Organism. J. Reenstierna—p. 309.
New Experimental Researches on Hemolysis. H. Diacono.—p. 318.

The Filtrable Form of Bacillus Pestis.—Burnet experimented with filtrates of organs removed from rats and guinea-pigs dead from plague. Cultures of *Bacillus pestis* were obtained with three filtrates. One filtrate caused plague infection in the guinea-pig. The results proved that search for filtrable forms of bacteria should be made not in preserved cultures, but in infected animal tissues at the phase of suppuration or autolysis The filtrable form of *Bacillus pestis* appeared as a granule proceeding from lytic disintegration of the bacillus. These filtrable forms present an analogy to that of the tubercle bacillus, probably also to those of the dysentery and of the typhoid bacilli.

Search for Bacterium Melitensis in Domestic Animals.—In his research, Torstenson used the blood and organs of twenty-three domestic animals living in contact with goats. Some of the latter were infected with *Bacterium melitensis*. The seroreaction and the cultures were negative. This shows that domestic animals, usually sensitive to melitensis inoculation, resist natural infection with the bacterium.

Archives Méd.-Chir. de l'App. Respiratoire, Paris

1: 395-490 (Oct.) 1926

*Embolic Form of Secondary Carcinomatosis of the Lungs. M. Loeper and R Turpin—p 395.
Deep Roentgenotherapy in Tumor of the Mediastinum. J. Pierquin and G. Richard—p 412
Roentgen Ray Treatment of Laryngeal Lymphocytoma. P. Cottenot.—p. 434.

Embolic Form of Acute Secondary Carcinomatosis of the Lungs.—The case described was in a man, aged 45. The disease started with symptoms of gastric ulcer, developing gradually into those of cancer. Phenomena on the part of the lungs appeared six years later. The association of obliterating phlebitis with signs of recurring pulmonary infarction suggested, Loeper and Turpin say, the diagnosis of embolism of the lungs. The patient died after four days. At necropsy, miliary and nodular carcinomas were found in the lungs, without any traces of infarction. The coexisting congestion and edema were probably a factor in the pathogenesis of the pulmonary syndrome. Obviously the phlebitis was caused by the primary tumor.

Bulletin de l'Académie de Médecine, Paris

97: 389-440 (March 29) 1927

Statistics of Familial Cancer. Hanriot.—p. 389.
A Study of Diabetic Arteritis. M. Letulle et al—p. 394.
Heredity of Cancer. Auvray.—p. 420.
Theinism in Tunis. B. Dinguizli—p. 423.

*Action of Insulin on Nondiabetic Arteritis Obliterans. J. Yacoël and G. Boyer.—p. 429.
Microcrystallography in Identification of Mineral Waters. M. Perrin and P. Colson.—p. 434.

97: 441-466 (April 5) 1927

Case of Familial Cancer. Auvray.—p. 441.
A New Roentgenoqualimeter. Solomon.—p. 444.
Vaccine Treatment of Poradenitis. P. Delbet.—p. 453.
Elementary Structure of Striated Muscle Fiber. R. Lutembacher.—p. 457.
Inquiry on the Tuberculin Reaction in Rural Populations. Phélebon.—p. 462.

Beneficial Effect of Insulin in Arteritis Obliterans.—Yacoël and Boyer's case of nondiabetic arteritis obliterans was reported by Ambard, Boyer and Schmidt six months ago, when the patient, a man aged 36, had been under insulin treatment for six months. Rapid disappearance of the pain was then noted. Yacoël and Boyer now give further results of the treatment, which consisted in daily injections of 15 units of insulin. The patient is walking and has resumed his usual occupation. The oscillometric index rose from 3 to 5.5 within the last three months, evidencing increased permeability of the arteries. Yacoël and Boyer consider chronic arteritis obliterans as a local trophic disturbance in which other endocrine glands besides the pancreas may be involved. The influence of insulin is thus explained. Several similar cases are under treatment with insulin at the present time. Great improvement is manifest, although the treatment has been given for only a few months.

Bulletins de la Société Médicale des Hôpitaux, Paris

51: 337-382 (March 24) 1927

Pneumothorax Induced on the Side Opposite to Thoracoplasty. P. Ameuille.—p. 337.
Acrocyanosis Occasioned by Cold. E. May and G. Dreyfus-Sée.—p. 340.
Bilharzic Splenomegalia in Paris. P. Emile-Weil.—p. 344.
*Factors That Influence Learning to Walk. G. Variot.—p. 353.
Dysenteric and Azotemic Syndromes from Colon Bacillus. P. Melnotte and A. Farjot.—p. 361.
Pseudomalarial Jaundice Caused by Colon Bacillus. P. Melnotte and A. Farjot.—p. 364.
Suprarenal Paraganglioma with Paroxysmal Hypertension. C. Oberling and G. Jung.—p. 366.
Bronchiectasis Following Pleuropulmonary Sclerosis. E. Sergent et al. —p. 371.

Normal and Pathologic Factors Influencing the Age at Which Children Start to Walk.—Variot's statistics are based on 490 observations. About 67 per cent of the children began to walk when they were between 11 and 14 months old. Their height was then from 71 to 76 cm. The weight at birth was from 3,000 to 3,500 Gm.; when they started to walk it was from 9 to 9.6 Kg. A connection between the weight or height of the infants and the age at which they began to walk was not apparent. Of the children who were fed exclusively on mother's milk, 82.8 per cent began to walk between the eleventh and fourteenth months; in infants fed first on mother's milk and later artifically, the percentage was 68.58; the percentage in infants who were entirely bottle-fed was 61.45. Most of the children had six or eight teeth when they started to walk. The rôle of sex proved insignificant. Acute diseases, atrophic rickets, and syphilitic, tuberculous or alcoholic heredity retarded walking. The same was observed in regard to congenital or acquired diseases of the nervous system.

51: 383-430 (March 31) 1927

Embolic Obliteration of Common Iliac Artery Without Gangrene. A. Lemierre and A. Duruy.—p. 385.
Interlobar Pleurisy and Abscess of the Lung. J. Comby.—p. 393.
Avellis' Syndrome Spontaneously Cured. Lenoble and Pineau.—p. 395.
Pseudopneumothorax with Bronchiectasis in a Child. L. Ribadeau-Dumas et al.—p. 398.
Pulmonary Adenitis in Infants. L. Ribadeau-Dumas and Chabrun.—p. 402.
*Purpura with Lesions of the Spinal Ganglions. T. Mironesco and Perlstein.—p. 406.
*Spectroscopic Estimation of Bengal Rose in the Blood. Snapper and S. C. A. Spoor.—p. 409.
Roentgen Rays and Pilocarpine in the Treatment of Mikulicz's Syndrome. Pasteur Vallery-Radot et al.—p. 410.
Benzocinnamic Ester in Treatment of Pulmonary Tuberculosis. J. Jacobson.—p. 418.

Association of Purpura with Ganglionic Lesions.—In a case of fatal hemorrhagic purpura in a woman, aged 38, lesions of the lower spinal and the upper dorsal ganglions, of considerable extent, were discovered at necropsy by Mironesco and Perlstein. Chromatolysis of the nervous cells, increase of interstitial tissue and vascular hyperemia were found. Otherwise the neuraxon was intact. Symmetric location of the skin lesions suggested the theory that the pathologic changes in the ganglions might have been a factor in the disease.

Spectroscopic Evaluation of Bengal Rose in the Blood.—Snapper and Spoor point out the fact that colorimetric evaluation of bengal rose in the blood used in liver function tests may sometimes be misleading. This occurs in cases in which hemolysis is present. The pink hue of the bengal is then superposed on the red hue of the hemoglobin. To remedy this, the authors suggest a spectroscopic method of evaluation of the dye which, they say, is simple and rapid. Withdrawal of blood for control, which precedes injection of the bengal rose in the colorimetric method, is superfluous in the spectroscopic method. The details of the technic are given.

51: 431-490 (April 7) 1927

Pulmonary Abscess Cured with Autovaccine. R. J. Weisenbach.—p. 431.
Endocrine Theory of Buerger's Disease. Sicard.—p. 443.
*Edematous Form of Arteritis of the Lower Extremities. P. Harvier and A. Lemaire.—p. 446.
Lipiodol Examination of Arteritis of the Lower Extremities. P. Harvier and A. Lemaire.—p. 448.
Roentgen-Ray Treatment of Asthma and Spasmodic Coryza. Pasteur Vallery-Radot et al.—p. 456.
Pleonosteosis in Congenital Syphilis. G. Laroche and Barthes.—p. 459.
Bilateral Otitis in an Infant. L. Girard.—p. 465.
Note on Bilateral Otitis in an Infant. M. Renaud.—p. 467.
Bacillus-Free Sputum in Acute Tuberculosis. G. Paisseau and E. Boegner.—p. 469.
Interlobar Pleurisy and Suppuration of the Lung. E. Sergent and R. Kourilsky.—p. 476.
Chronic Endocarditis of Nonvalvular Origin. A. Landau et al.—p. 484.

Edematous Form of Arteritis in the Lower Limbs.—Harvier and Lemaire describe two cases of arteritis in the lower extremities, in which unilateral edema was the only clinical manifestation. The edema was accompanied by a high local temperature. In one instance, profuse sweating in both limbs preceded the edema by a year. Slight hypertension and increase in the oscillometric index coexisted with the edema. All the morbid signs testify to changes involving a part of the sympathetic. The changes may be connected with irritation of the arterial sheath, favored by walking and fatigue.

Paris Médical

61: 213-244 (March 5) 1927

Syphilis in 1927. G. Milian and L. Brodier.—p. 213.
Visceral Syphilis Awaked by Acute Infection. E. Gougerot.—p. 222.
Polymorphism and Evolution of Treponema. H. Jausion and A. Pecker.—p. 230.
Acquired Syphilis in Children. P. Fernet.—p. 233.
Recurring Roseola and Tardy Roseola. J. Delalande.—p. 236.
Pigmentary Syphilid of the Neck. M. Wahl.—p. 240.

61: 289-304 (*March 26*) 1927

War Surgery. Maisonnet.—p. 289.
*Inhibiting Action of Ergotamine on the Sympathetic. C. Dreyfus.—p. **301.**

Ergotamine Exerts an Inhibiting Action on the Sympathetic.—Dreyfus summarizes the researches made by various authors on ergotamine. He concludes that the inhibiting action of the alkaloid on the sympathetic nervous system is incontestable. Therefore ergotamine should be used in all cases in which sympathicotonia is present. It is especially indicated in preoperative and postoperative treatment of exophthalmic goiter. From two to five tablets, each containing 0.001 Gm. of ergotamine tartrate, are given daily for a week. The treatment may be repeated once or twice at from three to five day intervals.

61: 305-340 (April 2) 1927

Pathology of Digestive Tract in 1927. P. Carnot and H. Gaehlinger.—p. 305.
*Pathogenesis of Pyloroduodenitis. L. Bouchut and P. P. Ravault.—p. 322.
Gastroptosis and Gastric Ulcer. Faroy et al.—p. 327.
Study of Diaphragmatic Eventration. P. Jacquet.—p. 330.
Clinical Value of Gastroscopy. J. Rachet.—p. 335.
Pernicious Anemia and Gastric Ulcer. P. Carnot et al.—p. 338.

Cases of Pyloroduodenitis: Its Pathogenesis.—Bouchut and Ravault call attention to a disease the syndrome of which resembles surprisingly that of gastric or of duodenal ulcer The lesions in this instance consist of parenchymatous and interstitial inflammation of the pyloric and duodenal mucosa It is probable that many supposed ulcers of the stomach, subsiding in a few weeks under medical treatment, are nothing else than pyloroduodenitis The theory is that the latter is caused by primary infection of the mucosa by a micro organism the character and manner of invasion of which are still unknown Improper alimentation and alcoholism are adjuvant factors The pyloroduodenitis may prove to be a preulcerous stage of gastric ulcer Operation is justified only if diet and persistent medical treatment fail Two of seven cases observed are described

Presse Médicale, Paris

35 401 416 (March 30) 1927

Mikulicz s Drain in Intestinal Surgery J L Faure —p 401
*Search for Tubercle Bacilli in Gastric Contents P F Armand Delille and J Vibert —p 402

Examination of Gastric Contents for Bacteriologic Diagnosis of Pulmonary Tuberculosis in Young Children—Armand Delille and Vibert point out that in young children bacteriologic diagnosis of pulmonary tuberculosis is usually impracticable since sputum cannot readily be obtained To remedy this situation they suggest lavage of the stomach From 80 to 100 cc of tepid boiled water is introduced into the child s stomach as soon as it awakes in the morning The aspirated water contains bronchial secretions swallowed by the child The secretion is isolated by centrifugalization Tubercle bacilli were found by this method in 30 9 per cent of the 174 gastric contents examined In thirteen of the positive cases, the presence of the bacilli confirmed the physical and the roentgenologic signs in eighteen cases, the only other indications of the diseases were the roentgenologic signs, in three cases physical and roentgenologic signs were both absent

35 417 432 (April 2) 1927

*Sclerosis of Island of Reil and Periaxial Encephalitis C Foix and J Marie —p 417
Hemorrhagic Pleurisy with Artificial Pneumothorax V Hinault —p 420

35 433 448 (April 6) 1927

Clinical Varieties of Progeria E Apert and P Robin —p 433
Aortic Aneurysm and Pulmonary Tuberculosis J Genevrier and H Descomps —p 437
Role of Kidneys and Suprarenals in Diphtheria A Ravina —p 438

Sclerosis of the Island of Reil and Diffuse Periaxial Encephalitis—In Foix and Marie's opinion, sclerosis of the island of Reil and diffuse periaxial encephalitis represent two clinical forms of the same disease The first form is chronic the second is subacute and frequently fatal Observations of two patients, aged 14 and 63, respectively with the chronic form are reported The disease is characterized by a syndrome of spasmodic paralyses, developing within a few days or weeks Sensory disturbances among them reduction of vision may be an initial clinical manifestation Mental derangement consists in apathy and slow ideation This is succeeded by a second phase, in which periods of regression occur The third phase is the phase of sequelae, it starts a year or a year and a half after the beginning of the disease Paralysis of all four limbs, blindness, idiocy and epilepsy were the sequelae in the younger patient Bilateral location of the lesions is an important differential sign from tumor of the brain The disease may also be confounded with optic neuromyelitis The latter can be distinguished by the changes in the cerebrospinal fluid and by the difference in its course In children, sclerosis of the island of Reil should not be mistaken for infantile encephalitis

35 449 464 (April 9) 1927

Hyperacidity of Feces in Pulmonary Tuberculosis A Courcoux and K Godel —p 449
*Diagnostic Value of Position in Dilatation of the Stomach G Leven —p 453
Results of Suprarenalectomy in Gangrene of the Extremities J Senèque —p 454

Diagnostic and Therapeutic Value of Position in Dilatation of the Stomach—Leven emphasizes that hypersensitiveness of the solar plexus, accompanying dilatation of the stomach, is distinctly revealed only when the patient is in the upright position Examination of the patient in the recumbent position is without diagnostic value, since the solar hypersensitiveness is then greatly reduced The pain that appears in the erect position when the stomach is raised, and disappears in the prone position, when the stomach is displaced downward is called by Leven "signal pain" The diagnosis of dilatation of the stomach cannot be definitely established unless the reflex orthostatic symptoms are explored The results of examination for the "pain signal" were always confirmed by roentgenograms These results are more important than the classic clapotage symptom The latter may be absent in excessive dilatation or it may occur in aerophagy without dilatation Placing the patient in an appropriate position is a method of treatment Four cases are described

Revue de Chirurgie, Paris

45: 619 727 1926

*Damage from Enucleation of Hydatid Cysts F Devé —p 619
Importance of Congenital Anomalies of the Large Intestine in Surgery. P Hecker et al —p 661

Injury from Enucleation for Hydatid Cysts—Dévé is opposed to the practice of enucleating hydatid cysts wherever they are located With this operation, accidental opening of the cyst and secondary echinococcosis can readily occur Besides the adjacent visceral tissue is necessarily removed with the cyst and the functioning of the organ is consequently impaired Only in cases in which atrophy of the involved organ is already considerable or in cases in which the cystic adhesions are insignificant, is enucleation allowed. The preferred method of intervention is the following The exposed cyst is punctured, and then filled with formaldehyde After this, the cyst is incised, and the mother membrane extracted The edges of the outer coat are sutured A drain is not required

Revue Française d'Endocrinologie, Paris

4 381 460 (Dec) 1926

*Hyperglycemia Induced by Secretin H Hermann —p 381
*Activity of Insulin and Dysfunction of Endocrine Glands G P. Sacharoff and J S Danenkoff —p 416

Hyperglycemia Following Injections of Secretin.—Hermann's researches were made on dogs with a pancreatic fistula Injections of secretin, prepared by the Bayliss-Starling method (the technic is given), were followed immediately by hyperglycemia The average increase of the blood sugar was 25 per cent of the initial glycemia. The hyperglycemia lasted half an hour, it was succeeded by hypoglycemia Further by means of alcohol, secretin was separated from associated hypotensive substances The secretin and these substances were injected separately in another series of animals There was evidence that the primary hyperglycemia is due to the hypotensive products The action of secretin consists in stimulation of the pancreatic secretion it causes the hypoglycemia In seven transfusion experiments, both suprarenals were removed from the recipient dog, then the jugular vein was anastomosed with the suprarenal vein of the donor dog The latter was injected with secretin This resulted in an increase of epinephrine secretion in the recipient dog The origin of hyperglycemia from secretin is thus traced to the organs secreting epinephrine

Paradoxical Action of Insulin and Dysfunction of Endocrine Gland—Sacharoff and Danenkoff's study tended to verify the influence of certain substances on the action of insulin on the blood sugar Fasting rabbits were given an injection of insulin, followed soon by an injection of one of the substances tested Small doses of calcium increased the action of insulin, large doses considerably decreased its action Magnesium constantly reenforced the effect of insulin The action of sodium, potassium and phosphate was analogous to that of calcium Distilled water appeared to enhance the action of insulin The results confirm Kraus' theory that electrolytes play an important role in hormonal activity Diet, fatigue, possibly even the seasons influence the effect of the hormone In addition, changes in ion reactions induced by lesions of an endocrine gland may influence the action of a hormone on the intact gland.

Schweizerische medizinische Wochenschrift, Basel

57: 241 264 (March 12) 1927

*Lymphatic Reaction M L Schmidheiny —p 241
Permeability of Skin for Ultraviolet Rays J von Ries —p 248
Fractures of Diaphyses of the Leg Bones Cornioley —p 250 C td
Catarrhal Proctitis. O. Schirmer —p 258.

Lymphatic Reaction.—Schmidheiny reports in detail ten cases of acute lymphadenosis with lymphocytosis Several of these patients had jaundice The prognosis is good, but the differential diagnosis from acute lymphatic leukemia is difficult Naegeli considers the deep basophilia of the cytoplasm in the lymphatic reaction as important in this respect

5: 265 288 (March 19) 1927

Technic of Roentgenoscopy H Lossen —p 265
*Injuries from Surgical Diathermy M Schaefer —p 268
Recurrent Tubal Pregnancy. M Wetterwald —p 271
*Besredka s Tuberculosis Reaction V E Badoux —p 274
Talma s Operation R. Hoffmann —p 277.
Treatment of Influenza. E. Baumann —p 277.

Injuries from Surgical Diathermy—From Clairmont's clinic Schaefer reports three cases of grave injury due to the use of surgical diathermy. Two of them occurred in abdominal operations Resection of the necrotic part of the intestine saved the life of one of the patients The other died from perforation of the colon. Another death was probably due to the passage of a part of the current through the heart in an intervention made for empyema

Besredka's Tuberculosis Reaction—Badoux found that Besredka's method of serodiagnosis of tuberculosis does not give reliable results in tuberculosis in guinea-pigs The cause lies in some peculiarity of the serum of the guinea-pig

Pediatria, Naples

35: 289 344 (March 15) 1927

Treatment of Leishmaniasis L Auricchio —p 289
*Physicochemical Constants in Anemias M Giuffre —p 301.
Associated Scarlet Fever and Measles B Peschle —p 309
Mongolism A Zallocco —p 323

Physicochemical Constants in Anemias.—Giuffrè found a lowered surface tension of the serum in anemias of various origins (secondary, leishmaniasis, Jaksch's, myxedema)

Policlinico, Rome

34: 379 414 (March 14) 1927

*Nature of Wassermann Reaction F Tonietti —p 379
Insulin Treatment of Diabetic Gangrene G Pittiani —p 382
"Action of Potassium Iodide on Mercuric Cyanides" E Pittarelli —p 385
The "Visiting Physician" S Sberna —p 386

Nature of Wassermann Reaction—With Van Slyke's method, Tonietti determined the amount of amino acids in the filtrate from serums coagulated by trichloracetic acid In healthy individuals and in patients with various diseases, the concentration was from 4 to 6 5 mg per hundred cubic centimeters It was increased to from 9 1 to 15 mg per hundred cubic centimeters in individuals with a positive Wassermann reaction The parallelism was especially striking in three malaria patients who had a positive Wassermann reaction and increased concentration of amino-acids only during the attacks, after which the reaction was negative

34: 105 152 (March 15) 1927 Surgical Section

*Fractures of Hand and Foot S Diez —p 105
Unusual Localizations of Lipomatosis A Turco —p 138

Fractures of Hand and Foot.—Diez studied the fractures of long bones of the hand and foot with special regard to self-inflicted injuries The only method which may give a hint to a physician in this respect is the comparison of the fracture with the alleged accident Such subjects try to limit the injury to the desired extent and this frequently allows one to prove that the fracture could not have been produced in the way which they describe.

34. 105 152 (March 1) 1927 Medical Section

Secretion of Fasting Stomach V Debenedetti —p 105 C td
Optimum Secretion in Hyperchlorhydria F Alzona —p 118
*Gastro Intestinal Ulcers of Central Nervous Origin F Battaglia —p 133
Bilateral Pulsating Exophthalmus A Bigoni —p 142

Gastro-Intestinal Ulcers of Central Nervous Origin—Battaglia observed erosions and hemorrhages in the stomach and intestine of dogs after injury to the optic thalamus.

Rivista di Clinica Pediatrica, Florence

25: 145 216 (March 15) 1927

*Infectious Erythema G Taccone —p 145
The Thyroid in Tuberculous Children R Dardani —p 163

Infectious Erythema—Taccone observed an epidemic of infectious erythema ("fifth disease") The peculiar "geographic' distribution of the erythema and the frequent changes of its intensity and apyrexia are confirmed The leukocyte count was almost normal

Pediatría Española, Madrid

16 1 32 (Jan) 1927

*History of Diphtheria D Jesus Sarabia y Pardo —p 1
Advantages and Disadvantages of Wet Nurses M Gonzalez Alvarez —p 10

Earliest Spanish References to Diphtheria—In his book, 'Libro de Epidemiología Española," published in 1803, Joaquin Villalba collected all the references that he could find to diphtheria and other communicable diseases The earliest mention of the disease in Spanish is a reference to an epidemic of malignant angina or "tabardillo" in 1610 The outbreak spread from Spain to Italy, and lasted about twenty years The disease is not mentioned either by the Arabian writers or by Juan Alfonso and Pedro Vazquez as late as 1600 but references to it are common all through the seventeenth and eighteenth centuries

Progresos de la Clinica, Madrid

35. 161 240 (March) 1927

Asthma and Diet J Verdes Montenegro —p 161
Perforations of the Esophagus V Fairen —p 164
Acquired Pulmonary Stenosis A Crespo Alvarez —p 172
Opticociliary Neurotomy J Basterra —p 175
Tuberculosis of the Mammary Gland E Slocker —p 177
*Local Autohemotherapy in Trachoma A Campoy Ibanez —p 185
*Serology of Leprosy J Bejarano —p 207

Autohemotherapy of Trachoma.—In 157 patients with trachoma, Campoy tried local autohemotherapy (washing the eye with blood from the patient) His statistics show 63 69 per cent unconfirmed cures, 31 84 per cent confirmed cures, 2 54 per cent recent cures, and 1 91 per cent improvement when the patients stopped treatment The method has proved useful in both sexes and at all ages There are no contraindications nor eye reactions Results are obtained more quickly than with any other method Campoy describes in detail his cases, and the method and the devices which have proved most efficient From seven to twelve treatments were given, the time needed for recovery was from sixteen to forty-three days

Serology of Leprosy.—In twenty-two lepers studied by Bejarano, the blood Wassermann reaction was positive in 52 5 per cent, the Hecht reaction in 60 per cent and the Meinicke reaction in 36 per cent The tubercular type gave the largest number of positive reactions, the anesthetic type the largest number of negative reactions The syphilitic antigen proved the most efficient in the tubercular type and the cholesterolized normal in the mixed type The sedimentation speed test has no relation to the serum reactions These change comparatively quickly, in accordance with the florid nature of the disease Treatment alters the reactions, but not as quickly as in syphilis The spinal fluid reaction is regularly negative

Revista de Especialidades, Buenos Aires

1: 709 1112 (Dec) 1926 Partial Index

Lucid Intervals N Rojas —p 709
Traumatic Neurosis M Alurralde and M J Sepich —p 720
Results of Ventriculography in Brain Tumor V Dimitri and M Balado —p 751
Histology of Acute Ascending Paralysis M Alurralde and M J Sepich —p 808

Melancholy Stupor and Parkinson's Disease. J. M. Obarrio.—p. 834.
Jacksonian Epilepsy and Astereognosis Caused by Glioma. M. Alurralde et al.—p. 908.
*Congenital Hydronephrosis in Brothers. L. E. Pagliere.—p. 938.
*An Uncommon Accident Following Prostatic Massage. E. Castaño.—p. 953.
*An Unusual Complication of Gonorrhea. R. Spurr.—p. 964.
Epidemic Encephalitis with Ocular Disturbances. E. Bernasconi Cramer and E. Adrogué.—p. 980.
Associated Eye Lesions. J. Lijó Pavía and M. Dusseldorp.—p. 985
Ocular Symptoms of Myasthenia Gravis Pseudoparalytica. M. Dusseldorp —p 1001.
Flattening of the Cornea. E. Adrogué and B. Courtis.—p. 1051.
A Case of Infantile Scurvy. M. Acuña and M. T. Vallino.—p. 1059.
*Ascarid Infection in Infants. M. J. del Carril.—p. 1071.
Malformations of Trachea and Esophagus. J. Bacigalupo and M. J. Vergnolle —p. 1103

Congenital Hydronephrosis in Two Brothers.—The photographs show the types of congenital hydronephrosis in two brothers. One had in addition a thickened ureter. In the other the defect seemed to be due to a slightly spiral ureteral implantation. Pressure exerted on the pelvis did not elicit urine.

Accident Caused by Prostatic Massage.—While Castaño's patient was massaging his own prostatic gland, a vein tore. An enormous hematoma developed. Castaño has not found a similar case in the literature.

Uncommon Complication of Gonorrhea.—Spurr describes the case of a boy, aged 19, who lost the use of his legs and all muscular power two months after contracting gonorrhea. No spontaneous pain existed, but the slightest pressure on the back of the thigh caused severe pain. With treatment aimed at the gonococcus, the patient gradually recovered the use of his legs. The therapeutic response confirmed the diagnosis of sciatic neuritis of gonorrheal origin.

Ascarid Infestation Resembling Meningitis in an Infant.—A girl, 22 months old, was brought to the hospital with meningeal symptoms. From the history, it appeared that worms had been expelled. Lumbar puncture yielded no sign of meningitis. Santonin was used and a large number of ascarids were eliminated, after which the patient improved and the meningeal symptoms subsided. A few days later bronchopneumonia with myocarditis developed, and the child died. At necropsy, the intestine was found filled with ascarids, some of which were present even in the stomach The enormous number is evidence of an old condition, while the recent symptoms had been acute, appearing within the last three days. Instead of supporting the idea that ascarids may cause meningitis, the facts bear witness to the tolerance of the body to these worms.

Revista Médica de Barcelona

7: 129-227 (Feb.) 1927

Influence of Spinal Anesthesia on Intestinal Peristalsis. F. Doménech Alsina.—p. 132. C'td.
*New Stain for Fats. A. Ferrer Cagigal.—p. 150.
Cystic Embryoma of the Omentum. A. Trías Pujol.—p. 152.

Stain for Fats.—Ferrer used paprika with much success as a stain for fats. It is extracted in alcohol and ether until a soluble precipitate is obtained.

Revista Médica Latino-Americana, Buenos Aires

12: 617-759 (Feb.) 1927

*Treatment of Umbilical Hernia. R. Araya and A. G. Neumann.—p. 617.
Köhler's Disease of the Tarsal Scaphoid. C. Lugones.—p. 641.
Hemangioendothelioma of the Thyroid. D. Vivoli and P. A. Etchegorry.—p. 659.
Cheilitis Glandularis. J. J. Puente and A. Acevedo.—p. 671.
Etiology and Treatment of Diabetes Insipidus. S. G. Beyrne.—p. 680.
Transvesical Prostatectomy. A. Guadagnini.—p. 695.
Dieulafoy's Insanity in Bright's Disease. J. Espejo Solá.—p. 706.
Rubino's Test in Non-Leprous Subjects. V. Castro Paullier and L. M. Errecart.—p. 711.

Surgical Treatment of Umbilical Hernia.—Araya and Neumann state their method has a number of advantages. Among 206 patients operated on, there has not been a single death or recurrence. The only contraindication is in aged women with emphysema or heart trouble. The illustrations show the different steps.

Sciencia Médica, Río de Janeiro

5: 121-173 (March 31) 1927

Study of Leishmania Infections. H. Aragão.—p. 121.
Streptobacillus Hemophilus. A. de Assis.—p. 133.
*Blood Agglutinins in Brazilians. J. Aben-Athar.—p. 145.
The Leprosy Problem. H. C. dé Souza Araujo.—p. 154.

Blood Groups in Brazilians.—In a miscellaneous series of 274 Brazilians, 50 per cent belonged to group 1; 29.5 per cent to group 2; 17.8 per cent to group 3, and 2.5 per cent to group 4. The biochemical index, i. e., the ratio between groups 2 and 3 (B) was 1.6. Among eighty-four white Brazilians, the proportions represented by the different groups were respectively, 42.8, 40.4, 14.2 and 2.3 per cent; among forty-six Portuguese, 34.7, 47.8, 13.0 and 4.3 per cent; among ninety-three half-breeds, 51.6, 31.1, 15.0 and 2.1 per cent; among seventy-two mulattoes, 44.4, 33.3, 19.4 and 2.7 per cent; among sixty-five half-breed Indians, 61.5, 15.3, 21.5 and 1.5 per cent, and among thirty-two negroes, 40.6, 25.0, 28.1 and 6.2 per cent, respectively. The negroes and half-breeds have for some time shown a progressive decrease in Brazil. The Jansky numbering was used in the study.

Semana Médica, Buenos Aires

34: 769-832 (March 31) 1927. Partial Index

New Technic for Isolating the Soft Palate in Rhino-Pharyngeal Operations. L. Samengo.—p. 769.
The New Methods of Treating General Paralysis. G. Revault D'Allonnes.—p. 775.
Melancholy Stupor and Its Relation to Parkinson's Disease. J. M. Obarrio.—p. 778.
*Radium Therapy of Cancer of the Eyelid. N. Capizzano.—p. 795.
Abscess of the Liver. G. Segura.—p. 799.
*Leukocyte Count in Rabies. R. Esquivel and C. G. Lasta.—p. 804.
*Treatment of Burns with Brewers' Yeast. A. Cappelletti.—p. 815.
*Insulin in Dermatology. J. J. Darnet.—p. 819.

Radium in Cancer of the Eyelid.—Recently (1924-1926), Capizzano has treated seventy cases of epithelioma of the eyelid with radium exclusively. The cures amount to 74.28 per cent. Recurrences have not been more frequent than with other forms of treatment. The ages of the patients were from 20 to 80 years.

Leukocyte Count in Rabies.—In rabbits inoculated with fixed virus, Esquivel and Lasta found an average increase of neutrophils of 79.77 per cent; the lymphocytes decreased on the average 60.32 per cent in fifteen out of eighteen cases; the changes in the monocytes were inconstant; the eosinophils decreased 100 per cent in thirteen out of eighteen cases and from 10 to 60 per cent in the rest; the mast cells decreased on an average 58.53 per cent in fourteen cases and increased in four.

Yeast in the Treatment of Burns.—Dressings impregnated with brewers' yeast gave excellent results in the treatment of burns in Cappelletti's cases. The method was suggested by Plantier.

Insulin in Skin Diseases.—In all cases of a chronic skin lesion, Darnet advises investigation of the blood sugar. If a high content is found, insulin should be tried. Even when the figures are normal, an induced hyperglycemia test may yield a different result. In more than 100 cases of eczema, furunculosis, psoriasis, arsenical erythroderma, ulcers of the leg, intertrigo and acne, insulin was used and proved curative in many. The dosage was rather high, occasionally as much as 100 units a day.

Archiv für Kinderheilkunde, Stuttgart

80: 161-240 (March 18) 1927

*Angina with Lymphatic Reaction. E. Koenigsberger.—p. 161.
Diet in Fever. S. Éderer and E. Kramár.—p. 171.
Paratyphoid B, Breslau Type, in Infants. F. Goebel.—p. 181.
*Ossification of Carpus and Forearm. A. Munk.—p. 185.
*Retention of Salts in Infants. E. Rominger and H. Meyer.—p. 195.

Tonsillitis with Lymphatic Reaction. — Koenigsberger observed eighteen cases of acute lymphadenosis in children. The high fever and absence of general depression speak against acute leukemia, the lymphocytosis and absence of albuminuria against diphtheria. In some cases only a retrospective diagnosis can be made—for instance in one of their patients in whom the tonsillitis had apparently provoked an attack of hemorrhagic purpura. The lymphocytosis lasts for several weeks or months.

Ossification of Carpus and Forearm.—Munk measured the size of the centers of ossification in the bones of the carpus and distal end of the radius and ulna in children of various ages between birth and puberty.

Retention of Salts in Infants.—Rominger and Meyer found that the retention of minerals in healthy infants (breast-fed and artificially fed) depends to a large degree on the amount of minerals in the food. Therefore, the artificially fed infant suffers a certain degree of supermineralization, without corresponding retention of water, which, however, does not seem to cause any trouble.

Deutsche medizinische Wochenschrift, Berlin

53: 475-516 (March 18) 1927

Chronic Appendicitis. M. M. Gubergritz.—p. 476.
Paths of Tuberculous Infection. W. Strauss.—p. 481.
Lipoid Treatment of Tuberculosis. M. Reichelt.—p. 483.
*The Interfereometric Method. A. Streck.—p. 484.
Blood Sugar in Rabbits. M. Lévai et al.—p. 488.
*Nitrite Test of Urinary Infection. R. Hirsch.—p. 489.
Diet in Fever. S. Éderer and E. Kramár.—p. 490.
Abscess of the Brain. E. Siemerling.—p. 491.
Cerebral Paralysis in Children. E. Siemerling.—p. 492.
Survey of Otorhinolaryngology. M. Meyer.—p. 493.
Infectious Diseases. H. Deicher.—p. 495.
Medical Police. Lindenau.—p. 495.
Social Insurance and Physicians. S. Alexander.—p. 498.
Autonomous Characterology. E. Utitz.—p. 499.
Stuttgart Society for Study of Personality. Basler.—p. 501.

Interfereometric Method.—Streck found that the precautions recommended in making the interfereometric modifications of Abderhalden's test are irrelevant. Furthermore, he saw no difference in the reaction when the serum was incubated with the organ powder for twenty-four hours, as directed, or for one hour or for three days. Room temperature was just as good or bad as the incubator. He attributes the observed concentration of the serum to imbibition of the organ powder by the water of the serum.

Nitrite Test in Urine.—Hirsch confirms the advantages of the Weltmann-Haslinger technic for determination of nitrites in the urine. Fresh urine is mixed with an equal volume of Gries' reagent, consisting of 0.2 Gm. of alphanaphthylamine dissolved in 20 cc. of boiling water and filtered into 150 cc. of diluted acetic acid. This solution is mixed with a solution of 0.5 Gm. of sulphanilic acid in 150 cc. of diluted acetic acid. The mixture is stable in a dark bottle. A red color indicates the presence of nitrites. A negative reaction means either that the urine is sterile, or that it is infected with bacteria which do not form nitrites (gonococci, streptococci or tubercle bacilli). Two further possibilities are that not enough nitrites have been formed or that the urine did not contain enough nitrates. These last two possibilities are checked in the following manner: A two hour incubation at 37 C. gives the bacteria time to produce enough nitrites. Another sample of urine is incubated for one-half hour after the addition of a few drops of a 10 per cent solution of sodium nitrate, and is then tested for nitrites. A positive nitrite reaction in an acid urine makes a colon bacillus infection highly probable. Any positive result is reliable; negative results do not exclude infection.

Klinische Wochenschrift, Berlin

6: 481-528 (March 12) 1927

Action of Mineral Waters. K. Harpuder.—p. 481.
*Measuring Physical Fatigue. W. Strauss.—p. 483.
*The Blood Under Low Atmospheric Pressure. C. Seyfarth.—p. 487.
Roentgen-Ray Treatment of Myomas and Metrorrhagias. F. Kauffmann.—p. 489.
*By-Effects of "Synthalin." A. Adler.—p. 493.
Cause of Congenital Soft Skull. A. Eckstein and A. Sindler.—p. 494.
Hepatic Stasis and Water Elimination in Heart Diseases. E. von Haynal and G. von Dániel.—p. 496.
Variations in Sedimentation of Erythrocytes. W. Iwanow and I. Basilewitsch.—p. 497.
Specificity of Allen-Doisy's Test. S. Loewe.—p. 500.
Neuberg and Klopstock's Tuberculosis Antigen. H. Schulte-Tigges.—p. 500.
Technic of Mastic Test. W. Schmitt.—p. 501.
Shellac Reaction of the Cerebrospinal Fluid. A. Marchionini.—p. 501.
Tuberculosis of the Spleen. A. Hallermann.—p. 502.
High Altitudes and the Circulation. W. Löffler.—p. 503.
Medical Climatology. F. Baur.—p. 506.
Physician and Medical Man. W. Trendelenburg.—p. 526.

Measuring Fatigue.—Strauss measured the electric current derived from the upper extremity and from the mucous membrane of the lower lip. He found that fatigue lowers the difference of potential between these two regions (by increasing the potential of the skin). The time required for restitution seems to be fairly constant in the same individual. He hopes to develop this method to an objective measurement of fatigue.

The Blood Under Low Atmospheric Pressure.—Seyfarth observed an increased percentage of erythrocytes with supravital granulations in animals kept at low air pressure. The rapidity of the increase depends on the general condition of the animal. The granular erythrocytes have a larger diameter than the mature cells.

By-Effects of "Synthalin."—Adler noted an increase of urobilinogen in the urine of patients treated with "synthalin." In addition to this, Holzweissig observed a case of jaundice apparently due to this treatment. The gastro-intestinal disturbances following the use of "synthalin" may be prevented by the simultaneous administration of biliary salts—for instance, 0.5 Gm. of sodium dehydrocholate with every dose of "synthalin."

Medizinische Klinik, Berlin

23: 385-424 (March 18) 1927

*Action of Iodine on the Circulation. H. Guggenheimer and I. L. Fisher.—p. 385.
Malignity of Goiter. H. Flörcken and O. Mues.—p. 388.
The Latest Epidemic of Influenza. H. Taterka and M. Landsberg.—p. 389.
Scleremia Adultorum. E. Hofmann.—p. 392.
"Reducing" Treatments. F. Kisch.—p. 393.
Ectopia of Testis. W. Hoffmeister.—p. 397.
Treatment with Electric Currents. H. Lamberg.—p. 397.
Protection Against Skin Burns in Diathermy Treatment. E. Last.—p. 399.
Atoxyl-Resistant Lipase. D. Segenschmid.—p. 400.
Multiple Sclerosis, Paralysis of Peroneus and Nitrobenzene Poisoning. F. Föhrenbach.—p. 404.
Tumors of the Spinal Cord. K. Singer.—p. 405.
*Influenza and Alcohol. Bornstein.—p. 422.

Action of Iodine on the Circulation.—Guggenheimer and Fisher determined the action of iodides on the isolated heart. At first—with perfusion containing iodine diluted 1:75,000—they noted only a depressing effect on the contractions. With increasingly high dilutions—up to 1:5,000,000—there was besides this a distinct vasodilation, evidenced by increase in the perfusion rate. Further dilutions (1:12,500,000) were inactive. They point out that the normal iodine content of the blood (from 1:8 million to 1:12 million) is just below the lower limit of action of iodides. They had good therapeutic results in angiospastic conditions with the daily administration of from 0.015 to 0.03 Gm. of sodium iodide, divided into from three to six doses. Because of the simultaneous depressive action on the heart, the treatment should be combined with theobromine preparations or supplanted by them, if the heart is failing or in malignant sclerosis of the kidneys with permanent high blood pressure.

Influenza and Alcohol.—Bornstein, secretary of the Association of German Total Abstainer Physicians, points out that the alleged protective action of beer or other forms of alcohol in influenza is not established scientifically, and quotes against it another physician who claimed to have cured 299 soldiers suffering from influenza without the use of alcohol.

Monatsschrift für Geb. und Gynäkologie, Berlin

76: 1-90 (March) 1927

"Air Test of the Intactness of the Placenta." A. Haba.—p. 1.
Treatment of Mastitis with Autohemotherapy, Bardenheuer's Incision and Secondary Suture. Harttung.—p. 4.
*"Skull Trauma." E. Martin.—p. 7.
Diagnostic Errors in Uterus Bicornis. H. Siegmund.—p. 10.
Pyosalpinx with Abscesses of Liver and Brain. A. Esser.—p. 21.
Inflammatory Changes in Myoma. O. Frankl.—p. 27.
Causes of Sterility and of Tubal Pregnancy. F. Kok.—p. 32.
The Glove in Obstetrics in 1758. E. Ebstein.—p. 39.

"Skull Trauma."—Martin vigorously opposes those pathologists who recently (at the meeting of the Deutsche Gesellschaft für Kinderheilkunde) urged more active measures on the part of obstetricians, in order to avoid injury to the brain and the vessels of the skull of the child from the birth process. Such an injury is rare, and in no wise justifies a departure from conservative practice.

Wiener Archiv für innere Medizin, Vienna

14: 1-192 (March 15) 1927

•Angina Pectoris and Insufficiency of Right Ventricle. S. Wassermann.—p. 1.
Retrograde Ventricular Extrasystoles. B. Samet.—p. 11.
Intraventricular Disturbances of Conduction. B. Samet.—p. 15.
Chlorine Metabolism and Gastric Secretion. G. Holler et al.—pp. 21 and 75
•Functional Dissociation of Respiration. L. Condorelli and E. Rechnitzer.—p. 49.
•Pregnancy and Heart Block. W. Dressler.—p. 83.
•Congo Red in Diagnosis of Amyloidosis. U. Strasser.—p. 97.
"Blood Enzymes and Pregnancy." J Hofbauer.—p. 111.
Sensitiveness of Heart and Large Vessels. R. Singer.—p. 113.
Peptidases, Especially in Fever. L. Bohmig—p. 129.
•Splenomegalic Lymphogranulomatosis. G. Holler and K. Paschkis—p. 149.
Displacement of Tissue by Pneumonia. R. Fleckseder.—p 163.
Effect of Insulin on the Specific Dynamic Action of Foods. A. Sachs et al.—p. 175.

Angina Pectoris and Insufficiency of Right Ventricle.—In certain patients with angina pectoris Wassermann found an enlargement of the liver due to insufficiency of the right ventricle. With insufficiency of the left ventricle, the attacks of angina pectoris cease, as a rule.

Functional Dissociation of Respiration.—Condorelli and Rechnitzer studied volitional forced apnea in healthy subjects. In spite of an occlusion of the respiratory passages, unavailing respiratory movements appear after a time and increase until the subject gives up his voluntary apnea. The first movements are frequently limited to the diaphragm without any participation of the auxiliary muscles. The authors also discuss the mechanism of Cheyne-Stokes' respiration.

Pregnancy and Heart Block.—Dressler confirms the fact that complete heart block may not impair the prognosis of pregnancy, if careful examination excludes the possibility of serious myocarditis. On the contrary, partial heart block—even the slightest disturbance of the conduction—may signify extensive involvement of the myocardium and, as a rule, contraindicates pregnancy and especially labor.

Congo Red in Diagnosis of Amyloidosis.—Strasser's experience with this test was good. He observed retrogression of the amyloidosis in a young girl after amputation of the leg for osteomyelitis of the tibia. The associated nephritis, however, was not influenced.

Splenomegalic Lymphogranulomatosis.—Holler and Paschkis report two cases of lymphogranuloma of the spleen. One of the patients had a typical hemolytic jaundice, and the unexpected supplementary diagnosis was made on the extirpated spleen.

Wiener klinische Wochenschrift, Vienna

40: 341-376 (March 17) 1927

Blastocystic Infection in Man. A. Luger.—p. 341.
Disseminated Encephalomyelitis. E. Redlich.—p. 344.
•Blood Groups and Therapeutic Malaria. J. Wendlberger.—p. 345.
Successive and Simultaneous Bilateral Pneumothorax. H. Maendl.—p. 347.
Spontaneous Chylothorax in Childhood. E. Furth.—p. 350.
•Neuralgia of the Brachial Plexus. L. Popp.—p. 354.
Insulin in Intensive Feeding in Sanitariums. F. Lang.—p. 355.
Treatment of Menstrual Disturbances. R. Hofstätter.—p. 356.
Value of Electrocardiogram to Practitioner. R. Gussenbauer.—p. 358.
Mechanotherapy in Heart Diseases. E. Freund.—p. 359.
Function Test of Vegetative Nervous System. E. Spiegel. Supplement.—pp. 1-16.

Blood Groups and Therapeutic Malaria.—Wendlberger determined the blood groups in his fifty cases of therapeutic malaria. He gained the impression that the intravenous injection succeeds better if the donor's erythrocytes are not agglutinated by the recipient's serum.

Neuralgia of the Brachial Plexus.—Popp's patient recovered after removal of a cervical rib.

Zentralblatt für Chirurgie, Leipzig

54: 129-192 (Jan. 15) 1927

*Treatment of Fistulas of Duodenum and Small Intestine. J. Volkmann.—p. 130.
*Treatment of Diseases of the Mammary Gland with Pathologic Secretion. S. Erdheim.—p. 131.
*Treatment of Bleeding Nipple. E. Risak.—p. 134.
*Reply to Erdheim and Risak H Klose.—p. 136.
*Etiology and Treatment of Bleeding Nipple. B. O. Pribram.—p. 139.
Intra-Abdominal Bleeding from the Ovary During Menstruation. O. Dieter.—p. 142.
*Injury to the Bladder During Herniotomy. B. Weksner.—p. 143.
*A Case of Gastro-Ileostomy. J. Galpern.—p. 144.
Pseudometeorism Simulating Tuberculous Peritonitis. O. Wiedhopf.—p. 145.

Treatment of Fistulas of Duodenum and Small Intestine.—In a case of duodenal fistula after cholecystectomy, at which drainage of the common bile duct had been established, Volkmann introduced a catheter from the common bile duct into the efferent duodenum, with the object of supplying nourishment and of allowing the fistula to dry. The patient died shortly after, perhaps because the procedure was not thought of till too late. He also recommends that the method originated by McKenna for treating postoperative paralysis of the stomach be tried in duodenal fistula. The jejunum is exposed just beneath the duodenojejunal flexure and secured to the wound with sutures. Two catheters (number 18) are then sutured in, side by side, so that one leads to the stomach, the other to the small intestine.

Treatment of Bleeding Nipple.—Erdheim's standpoint is that a mutilating radical operation, with removal of the axillary glands, is not necessary in all cases of bleeding nipple. The latter is a symptom common to a number of pathologic processes, many of which can be cured by resection. In papilloma of the lactiferous ducts and the so-called precancerous process, the diseased tissue may be excised and the opinion of the pathologist obtained before proceeding further. He holds that the surgeon's aim should be the smallest operation that will produce a cure. Risak states that the standpoint of Hochenegg's clinic is that while operation is always indicated in case of bleeding nipple, a mutilating operation is not justified unless there is clinical or histologic evidence of carcinoma. Klose, replying to Erdheim and Risak, regrets that the discussion has become one of operative methods. There is great need of research by surgeons on the transition stages between benign and malignant growths. If only those lesions which are certainly carcinoma are treated radically, the statistics of recurrence will remain as they are. Improvement can come only from radical operation in precancerous stages. In his experience, bleeding nipple has proved a reliable guide. Atypical epithelial proliferations have been found in every case. A larger material is necessary to a final decision in the question, but, when this decision is arrived at, the question of what operation is best will be answered automatically. Pribram affirms that in a large majority of cases the cause of bleeding nipple is a lesion which he designates as hemorrhagic cystepithelioma. This lesion he describes at length. It is a papilliform epithelioma in a lactiferous duct which has undergone cystic enlargement. It is a localized process, near the nipple. The mammary gland may be entirely unchanged. Bleeding is the rule. The cyst varies in size from a pea to an orange. The overlying skin is usually not freely movable, but retraction of the nipple is rare. Bleeding from the nipple may precede the palpable tumor by many years. The tendency to metastasis is not great, and the axillary glands are nearly always free. The possibility of carcinomatous degeneration undoubtedly exists, and amputation of the breast should be practiced, but the necessity for removing the axillary glands does not appear to exist, if the lesion is, with certainty, a cystepithelioma.

Bladder Sutured to Poupart's Ligament During Herniotomy.—A young woman was confined to bed for eight months after operation on a left (probably inguinal) hernia. Her symptoms, which started the day after the operation, were pain in the bladder, bloody urine and a frequent desire to urinate, associated with pain. A second operation showed that the bladder had been sutured to Poupart's ligament. It was freed and the patient recovered.

Gastro-Ileostomy.—Six months after operation for gastric ulcer, the symptoms returned with increased severity. A second laparotomy revealed that at the first operation the ileum, instead of the jejunum, had been joined to the stomach. A typical peptic ulcer was present in the intestinal wall opposite the anastomosis. The case shows that it is possible to mistake the last loop for the first, and is a warning that one should not rely on the length of the mesentery for guidance, but should work under the control of the eye.

54: 193-256 (Jan. 22) 1927

*Cholascos. E. Melchior et al.—p. 194.
Abscess of the Liver Following Appendicitis. I. von Reök.—p. 196.
Autohemotherapy in Pyogenic Lesions of the Face. R. Hinze.—p. 200.
Novelties in Bandaging Technic. H. Hans.—p. 202.
*Bringing Case Reports Up to Date. V. E. Mertens.—p. 204.

Cholascos.—The problem of the acute intoxication and chronic cachexia without jaundice which follow the effusion of large quantities *of bile into the peritoneum was studied* in dogs by Melchior, Rosenthal and Wislicki. They found that ligation of the common bile duct and opening of the gallbladder resulted in the collection of bile acids in the blood and tissues, in such amounts that most of the animals died from bile acid poisoning in from twenty-four to forty-eight hours. *The absence of jaundice is explained by the fact that* the bile pigments, taken up by the blood, are excreted into the abdominal cavity by the liver, in so far as they are not eliminated with the urine. The excretion of bile acids is a slower process. It appears from these experiments that cholemia is misnamed, and that the syndrome thus termed is a *consequence of hepatic insufficiency,* rather than of the presence of bile acids in the blood. In cholascos there is a true cholemia—a direct poisoning by bile acids.

Bringing Case Reports Up to Date.—Mertens suggests that brief reports of progress or of further operations on patients whose cases have already been published should be sent for publication to the central organ of the *specialty concerned.* In this way, the end-results of many interesting cases, now hidden away in hospital archives, would be made available.

54: 257-320 (Jan. 29) 1927

*Action of Balsam of Peru in Wounds. C. Brunner and W. Silberschmidt.—p. 261.
Treatment of Gangrenous Hernia by Invagination. E. Franke.—p. 265.
Urethral Calculi. H. Koch.—p. 266.
Serum Protein Quotients in Surgical Tuberculosis. F. Raszeja.—p. 269.
Subcutaneous Emphysema as Sign of Ulcer Perforation. J. Vigyázó.—p. 271.
Genesis and Prophylaxis of Jejunal Ulcer. W. Sternberg.—p. 272.
Ileus in Pregnancy. T. Wilhelm.—p. 274.
Primary Carcinoma of the Liver Simulating Subphrenic Abscess. B. Lubarsky.—p. 279.

Antiseptic and Antitoxic Action of Balsam of Peru in Wounds.—In Brunner and Silberschmidt's experiments, balsam of Peru prevented death in three out of four guinea-pigs in which it was introduced into a cutaneous muscle wound, together with earth containing, in lethal amounts, the microorganisms of malignant edema and tetanus. In the fourth animal, life was prolonged. In the animal that survived, a circumscribed abscess formed, which broke spontaneously. Bacilli of the Fraenkel group and a few tetanus bacilli were found in the pus. The dose of balsam of Peru was from 1 to 1½ cc.; the quantity of earth, 0.05 Gm. In a further series of guinea-pigs, the balsam of Peru was introduced into the wound six hours after the infected earth. Two of these animals survived. When the interval was longer than six hours, the balsam was without effect. The six hour interval corresponds to Friedrich's incubation time. To study the *antitoxic action of the balsam, the authors introduced into* a cutaneous muscle wound in guinea-pigs a lethal dose of tetanus or botulinus toxin, followed immediately by the balsam. All the animals died, although death was postponed as long as five days. A further series of guinea-pigs were treated with subcutaneous injections of balsam and toxin mixed in vitro. All the animals thus treated remained alive. Some of the doses and the intervals between mixture and injection were as follows for guinea-pigs weighing 360 and 320 Gm., respectively: balsam of Peru, 0.2 cc., tetanus toxin, 1/120 cc., interval 5 minutes; balsam of Peru, 0.5 cc., toxin, 1/50 cc., interval two days.

Zentralblatt für Gynäkologie, Leipzig

51: 129-192 (Jan. 15) 1927

*Intra-Uterine Pressure in Normal Pregnancy and in Hydramnion. J. Wieloch.—p. 129.
*Industrial Pathology of Pregnancy and Labor. M. Hirsch.—p. 136.
**Treatment of Eclampsia. W. Stoeckel.—p. 141.*
Abdominal Circumference During Parturition. H. Baumann.—p. 150.
"Lymphocystofibroma" of the Uterus. F. Isbruch.—p. 160.
Surgical Treatment of Umbilical Hernia Associated with Obesity. R. Araya and A. G. Neumann.—p. 164.
Sedimentation Speed of Erythrocytes of the Blood of the Umbilical Cord. O. Silzer.—p. 170.
Oral Administration of Ergotamine in Gynecology and Obstetrics. O. Fohr.—p. 174.
Curettage of the Uterus by the Abdominal Route. N. Kakuschkin.—p. 179.
New Forceps for Introducing Gauze. P. Beck.—p. 181.

Intra-Uterine Pressure in Normal Pregnancy and in Hydramnion.—In three cases of hydramnion and in three cases of normal pregnancy (studied as controls) puncture of the uterus was performed from a point in the median line below the umbilicus, and the intra-uterine pressure was determined. After deductions for known sources of error, it appeared that intra-uterine pressure existed neither in normal pregnancy nor in slowly developing hydramnion.

Pregnancy and Labor in Women in the Textile Industry.—This study, made by Hirsch, comprises 3,165 completed pregnancies of women employed in the textile industry. The course of labor was pathologic in 34.4 per cent. Pathologic labors were 18 per cent more frequent in women who worked standing than in those who sat at their work. Premature births, stillbirths, forceps deliveries and cesarean sections were about 50 per cent more frequent in these women than in the general population; they were much more frequent in the women who stood than in those who sat at their work. Varicose veins occurred nearly three times as often in the women who stood as in those who sat.

Treatment of Eclampsia.—Stoeckel analyses the eclampsia cases seen at the Leipzig university women's clinic during the time that he directed it (1922-1926). The cases numbered 119. The total maternal mortality was 8.4 per cent, the corrected mortality 5.8 per cent. The mortality of the children was not quite 9 per cent. None of the babies delivered by cesarean section died. His practice is immediate delivery, followed, if it does not succeed, by venesection and narcosis. He fears that any advocacy of primary conservative treatment will lead to these patients being treated at home by physicians lacking in the skill and experience necessary for the individualization essential in conservative treatment.

51: 193-256 (Jan. 22) 1927

Injury to the Liver in Puerperal Fever. H. E Scheyer.—p. 194.
Causes of Metabolic Disturbances in Pregnancy. A. Loeser.—p. 200. C'cn.
Pathologic Torsion of the Umbilical Cord of an Ectopic Fetus. H. Steiner.—p. 209.
Bilateral Tubal Pregnancy. G. Schwarzwaller.—p. 217.
"Morphology and Biology of the Menstrual Process in the Uterine Mucosa." H. Meyer-Rüegg.—p. 219.
Tuberculosis of the Vaginal Portion of the Uterus. A. Katz.—p. 220.
*Adhesions of the Cervix After Curettage. B. Bass.—p. 223.
*Paraffin Tamponade. A. Landeker.—p. 225.

Adhesions of the Cervix After Curettage.—In the last eighteen months, Bass has seen twenty cases of cervical adhesions after curettage. The clinical picture is as follows: A month or two after the operation, pains resembling labor pains set in. They gradually cease, but return with each menstrual period. There is amenorrhea. The uterus is in most cases smaller than normal; the corpus is tender. The condition may be mistaken for atrophy of the uterine mucosa or for amenorrhea of ovarian origin. Treatment consists in dilating the cervix with sounds.

Paraffin Tamponade.—Paraffin, heated to about 60 C., is poured into a warmed rubber speculum inserted into the vagina. The speculum is withdrawn slowly as the fluid is poured in; and the paraffin mass spreads over the vaginal walls and portio and, finally, completely fills the vaginal cavity. There is no pain, and pressure is not too great to be borne in comfort. Care must be taken on withdrawal of the speculum not to let the hot paraffin touch the sensitive structures of the introitus When, at the end of one-half hour or of several hours, the block of paraffin is removed, the vaginal walls have undergone hyperemia and are thoroughly warmed through There is often considerable secretion, which is succeeded in a day or two by corresponding drying of the walls Landeker recommends this method in pelvic neuralgia and cramps, in inflammatory diseases of the uterus, parametrium and adnexa and in leukorrhea

51 257 370 (Jan 29) 1927

- *An Obstetric Catastrophe H Sellheim —p 261
- Chemical Hysterectomy for Carcinoma of the Corpus L F Driessen —p 27[illegible]
- Prophylactic Injection of a Pituitary Preparation in the Third Stage of Labor W Sigwart —p 280
- *Asepsis in Small Operations on the Uterine Cavity V Foderl —p 282
- Syncytioma Malignum H E Scheyer —p 284
- A Self Retaining Vaginal Speculum H Holler —p 296
- *Besredka s Filtrate in Puerperal Infections P Tron —p 298

Uterus Torn Out at Abortion—Expert Testimony —A physician in general practice in ending an incomplete abortion in the sixth month of pregnancy in the case of his own wife, tore out the entire uterus The wife recovered, but an action for illegally producing abortion and for malpractice was brought against the husband Sellheim assisted at the hearing as expert witness and discusses the difficulties and pitfalls to which the medical witness is subjected He makes a rule of submitting to verbal questioning only after he has deposited with the court a written statement on the matter under examination, to the preparation of which he has been able to bring a careful study of the case and the help of the literature, and to which he can refer his questioner at any moment In the present case he formed the theory of placenta praevia, which came away with the fetus unnoticed The placenta was still sought for by the physician whose fingers broke through the wall of the uterus and then grasped and tore out the organ in mistake for the placenta This theory was sustained by examination of the specimen The husband physician was acquitted

Asepsis in Small Operations on the Uterine Cavity —Foderl describes and illustrates a method for isolating the portio by a rubber sheet with an aperture in the center, after the manner in which the dentist isolates the diseased tooth on which he is working

Besredka's Filtrate in Puerperal Infections —With the object of producing local immunity and preventing generalization of the infection, a tampon moistened with 20 cc of Besredka's filtrate is introduced into the vagina or uterus On the first day, before the micro-organism has been identified, a mixed filtrate is used, from the second day on, a specific filtrate This treatment was used in fifty cases in the State Institute for Obstetrics and Gynecology in Leningrad, and Tron reports that, when applied early, the spread of the infection was checked, and the surface of the wound became clean after one or two applications

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- *Effect of Quinine on Formation of Agglutinins B I Kurochkin and K G Emelyanchik —p 3
- Pregnancy as a Biologic Phenomenon N I Kushtaloff —p 49

Influence of Quinine on Formation of Agglutinins.—Rabbits, dogs and pigeons were injected with typhoid vaccine daily for three days At the time of immunization, and on eight successive days, the animals were given quinine hydrochloride by the mouth Kurochkin and Emelyanchik state that examination of the blood serum showed that the amount of agglutinins was lower in the animals treated with quinine than in the controls The reduction of the agglutinins paralleled the duration of the quinine treatment Researches on the influence of quinine on formation of agglutinins in man are now being carried on

Russkaya Klinika, Moscow

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- Morphologic Blood Changes in Scurvy L Gurevich —p 777
- *Estimation of the Evacuating Activity of the Stomach K V Punin —p 794

Formula for Estimation of the Evacuating Activity of the Stomach —In order to establish the emptying ability of the stomach, the amount of the gastric juice secreted between the time of intake of the test meal and that of withdrawal of the remaining food must be known In his calculation, Punin takes for granted that the difference in the quantity of the gastric juice is considerable in various diseases, but that its acidity is almost always the same From 0 4 to 0 5 per cent of free hydrochloric acid is found constantly in the gastric juice The formula suggested is $\frac{v = p \quad a}{0 5 - d}$ Y indicates the amount of the secreted gastric juice, p, the amount of the food introduced, and a the amount of hydrochloric acid in 100 cc of the juice The quantity of the evacuated food is easily estimated by subtracting the amount of the food removed (d) from the food introduced (p) plus the secreted gastric juice (y) Thus $X = (p + y) - d$ The evacuating ability of the stomach was estimated by this method in 250 cases. In twenty eight, the diagnosis was confirmed at operation.

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- Local Anesthesia for Prolapse Operation N E Cronberg —p 201 In English
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- *Importance of Antenatal Care S A Gammeltoft —p 363 In English
- *Idem O Nyeborg —p 380 In English
- Transit of the Ovum from Ovary to Uterus in Rabbits A Westman Supplement —pp 7 104 In English

Corpus Luteum and Pregnancy.—Erik Ask-Upmark reviews the literature on the subject of the necessity of the presence of the corpus luteum for the maintenance of pregnancy during the first two months He comes to the conclusion that there is abundant evidence against such a necessity in the case of the human being

Does Treatment of the Preeclamptic Condition Prevent Eclampsia?—During the last twenty years eclampsia has been combated at the Lund university clinic by systematic treatment of the preeclamptic condition by diet, and, where necessary venesection or interruption of pregnancy The results, especially in recent years, are encouraging

Application of Crede's Prophylactic Method —Bostrom advises sealed drop-bottles or ampules to prevent accidents in which corrosive substances are dropped into the child s eye in place of silver nitrate He recalls that Crede insisted on the use of a glass rod, insuring that each conjunctival sac actually received its drop A study of forty-four cases of caustic injury to the eyes by a mistake in the solution applied indicates that by the present method of application this aim is not realized in a large number of cases To obviate this in the case of the drop-bottle, he has had the tip of the glass stopper reshaped into a 3 mm thick, smooth, rounded rod

Importance of Antenatal Care.—There were 121 maternal deaths in a total of 14,633 confinements at the Rigs hospital (university clinic), Copenhagen, from 1917 to 1925 In thirty-nine of these cases, antenatal treatment would probably, Gammeltoft says, have prevented the fatal outcome The various causes of death are tabulated, and in regard to each group the question is discussed as to whether or not treatment at an earlier stage of pregnancy might have saved life A brief history of antenatal care in Denmark is given by Nyeborg He goes on to show the results obtained by the Copenhagen university clinic (departments for diseases during pregnancy and for antenatal care) in pelvic anomalies, hyperemesis, morbus cordis, pulmonary tuberculosis and syphilis These complications were present in 23 per cent of 3,000 pregnancies, and the results obtained by antenatal care thoroughly confirmed its value

The Journal of the
American Medical Association

Published Under the Auspices of the Board of Trustees

Vol. 88, No. 26 Chicago, Illinois June 25, 1927

RELATION OF THE SUPRARENALS TO THE SYMPATHETIC NERVOUS SYSTEM *

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BOSTON

The existence of some sort of relationship between the suprarenals and the sympathetic nervous system was foreshadowed by Addison's and Brown-Séquard's observations seventy-five years ago that disease or destruction of these glands results in a train of symptoms in which circulatory weakness is a prominent feature. This probability was rendered almost a certainty by the work of Oliver and Schäfer and of Cybuski and Szymonowicz some thirty years ago. These observers showed that suprarenal extracts powerfully stimulate the arterioles to contract and the heart to beat more forcefully, results that are likewise brought about by sympathetic stimulation. These observers determined that the potent principle was obtainable from the medulla but not from the cortex of the gland. Elliot, in 1905, rounding out the investigations of Langley and Brodie and Dixon, determined that injections of suprarenal extracts and stimulation of sympathetic nerves give similar results throughout the body. This first half-century's work seemed to have solved rather satisfactorily the problem of the function of the suprarenals, at least so far as the medulla is concerned. Since destruction of the glands leads to circulatory failure and administration of suprarenal extracts brings about marked increase in blood pressure, this pressure, it was assumed, is normally maintained by the constant secretion of epinephrine. This idea was extended to include the whole sympathetic system, which was supposed to be kept in tonus by suprarenal secretion.[1]

Little account was taken at this time of Moore and Purinton's [2] observation that high dilutions of suprarenal extract may lead to a fall in blood pressure. This result was vaguely ascribed to the presence of some extraneous depressor substance in the extract that was more potent in high dilution than the epinephrine itself but was ordinarily masked by the latter.

An obvious check on the tonus theory is to ligate the suprarenal vessels and note the immediate effect on blood pressure. Since epinephrine is notably evanescent in its pressor action, if the sympathetic system were being kept active by its aid a prompt fall of pressure should result. Strehl and Weiss [3] put the matter to a test with rabbits and noted the expected fall of pressure at once. As soon as this was apparent the vessels were released, and the pressure promptly returned to its previous level. They did not take into account, however, the fact that stimulation of sensory nerves, such as might result from fastening the vessel ligatures, often gives a brief fall of pressure.

Young and Lehman,[4] and later Young [5] alone, repeated the experiment, but with the difference that the ligatures were kept in place for a considerable time and the immediate reflex effects of the manipulation ignored. It appeared then that the blood pressure was not significantly affected for a period of hours, a time much longer than that needed for the destruction of any accumulated circulating epinephrine. So strongly entrenched, however, was the tonus theory at this time that these incompatible observations received little consideration. Indeed, the period of conflicting testimony in endocrinology as a whole was then in full flower.

In 1912, I,[6] in collaboration with McClure, began a series of studies directed to a critical test of the tonus theory. A repetition of the suprarenal ligation experiments in dogs confirmed unequivocally the results of Young and Lehman. Blood pressure does not fall for hours after the suprarenal factor has been eliminated. The only apparent way to reconcile this fact with the tonus theory is to assume that the anesthesia had paralyzed the suprarenals themselves before the ligatures were tied. Many studies have shown, however, that the suprarenals, like other glands, are capable of secreting while the subject is anesthetized.

The theory was tested in another way.[7] Epinephrine not only stimulates the circulatory apparatus but also depresses the digestive system. If it were shown that gastro-intestinal depression is elicited at least as easily as circulatory stimulation, a high degree of probability would be established that epinephrine stimulation is not ordinarily a factor at all in maintenance of blood pressure. The physiologic price would be too great. Simultaneous records were taken of intestinal peristalsis and blood pressure in dogs. For periods up to ten minutes it was shown that epinephrine by vein stops peristalsis in dosages that leave blood pressure unaffected. Subsequently it was shown by Durant [8] in my laboratory that the same is true of cats, and that the depression of peristalsis can be maintained in both cats and dogs for periods up to an hour without any rise of blood pressure. In rabbits, however, the thresholds are nearly equal and by careful adjustment of dosage slight pressor effects can be secured without gastro-

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* Chairman's address, read before the Section on Pathology and Physiology at the Seventy-Eighth Annual Session of the American Medical Association, Washington, D. C., May 18, 1927.

[1] References to the older literature may be found in any of the standard monographs, such as Sharpey-Schafer: The Endocrine Organs, New York, Longmans, Green & Co., 1924.

[2] Moore and Purinton: Arch. f. d. ges. Physiol. **81**: 483, 1900.

[3] Strehl and Weiss: Arch. f. d. ges. Physiol. **81**: 107, 1901.

[4] Young and Lehman: J. Physiol. **37**: liv, 1908.

[5] Young, cited by Vincent: Ergebn. d. Physiol. **9**: 509, 1910.

[6] Hoskins and McClure: Am. J. Physiol. **30**: 192-195 (May) 1912.

[7] Hoskins and McClure: Am. J. Physiol. **31**: 59-63 (Nov.) 1912.

[8] Durant, R. R.: Am. J. Physiol. **72**: 314 (April) 1925.

intestinal paralysis. Only a few millimeters of pressure can be obtained, however, without checking peristalsis.

Another test was carried out.[9] If the blood pressure is constantly maintained by minimal discharge of epinephrine, any augmentation of the quantity of this drug should further increase the pressure. It was found, however, that with high dilutions epinephrine can be administered without any perceptible effect. As the rate of injection is increased a threshold is passed and the blood pressure goes, not up, but down. It would seem, then, that the suprarenals, if they exert any constant effect by continuous discharge of epinephrine, would function as a depressor mechanism. The experiments were extended by determining the rate of epinephrine discharge in anesthetized dogs, the caval pocket method that was subsequently employed extensively by Stewart and Rogoff and by Kodama being used. Under the conditions of these experiments the rate was found to be about one-fifth that requisite to evoke even the depressor effect of epinephrine. The rate of injection was then increased until a minimal pressor effect was obtained. This occurred only when some twenty times as much of the drug was injected as was being secreted by the suprarenals themselves. On the quantitative side I have never regarded these experiments very highly because of the abnormal conditions under which they were carried out; i. e., under anesthesia immediately after extensive abdominal operations. *That the effect of epinephrine in minimal doses* in normal subjects, however, is often depressing has been reported by various subsequent observers.

The results of the foregoing experiments seemed to render the tonus theory untenable. Nevertheless, the *stubborn facts remained that destruction of the suprarenals* kills the subjects, and low blood pressure is an outstanding feature of the terminal symptoms. *Elliott*[10] *had offered the suggestion and supported it* by an observation on a moribund cat that epinephrine acts to keep up blood pressure, not as an immediate stimulant, but as a factor in maintaining the functional integrity of the sympathetic mechanisms. This possibility, too, was put to test.[11] Granting that moribund animals are moribund and hence not susceptible to stimulation, it seemed logical to investigate the condition of the sympathetic system as the animals began to show well marked symptoms of suprarenal failure but while still able to react. It was found, in brief, that such animals respond perfectly well to stimulation of the vasomotor mechanism either electrically or by drugs, such as nicotine or epinephrine, at a time when muscular and cardiac weakness are strongly in evidence.

In acute experiments, then, the low blood pressure is to be ascribed to cardiac weakness rather than vasomotor failure. Indeed, the maintenance of normal blood pressure for a considerable period after cardiac failure begins to be apparent indicates that there is a compensatory overfunction of the vasomotor system. The problem was investigated further on eleven dogs deprived of from one half to seven tenths of their suprarenal tissue.[12] Blood pressure as well as the reactions to nicotine and epinephrine were determined aseptically before the operation and then at intervals of from one to eight days later. It was found that the reaction to nicotine, and hence the irritability of the sympathetic ganglions or centers, was materially depressed but that the reaction to epinephrine remained as before the operation. That part of the sympathetic system, the terminal "receptive substance," on which epinephrine exerts most of its stimulating effect was therefore not affected. The observations were interpreted as [illegible] central depression was only a phase [illegible] interference with fundamental metabolism characteristic of suprarenal deficiency. Since this depression always ensues when the cortical tissue of the suprarenals is destroyed but not at all when the epinephrine-containing medulla is removed, it is probable that it was not a question here of any epinephrine effect at all.

In connection with the last mentioned experiments, the effect of slowly infusing epinephrine into the blood stream of two suprarenalectomized dogs was tried. To our surprise the sympathetic irritability, as indicated by the reaction to nicotine, was not only not increased but was materially decreased. *The experiment was then* extended to include forty-four dogs, some with partial or complete removal of the suprarenals and some without interference with these glands.[13] In no instance was satisfactory evidence secured that epinephrine in any dosage increased sympathetic irritability. The sympathetic system was stimulated reflexly by means of the faradic current applied to sensory nerves and directly by faradizing the splanchnic nerves or by injecting nicotine. In numerous cases during the administration of epinephrine, the reaction to moderate stimulation was almost or completely abolished. Care was taken that the epinephrine should not be administered in amounts to raise the blood pressure to a point that would, in itself, prevent or mask the effects of the stimuli applied. Also, *the epinephrine depression* was found to be as well marked when the blood pressure was kept from rising by the administration of amyl nitrite.

A considerable amount of cogitation has been devoted to an attempt to formulate a theory of suprarenal function that would comfortably include the foregoing data. So far as they alone are concerned, it might be assumed that the primary function of the glands is, as many students of the problem have thought, to serve as a detoxicating mechanism. The "toxin" might be epinephrine itself or some allied chemical body that is picked up by the suprarenals and converted to an inert form for ultimate excretion, much as ammonium compounds of the body are converted to urea. The stored epinephrine might then, as a secondary adaptation, be discharged under emergency conditions and aid in integrating the body for muscular activity.

It would have to be assumed that the peripheral stimulating effect of the epinephrine itself would so surpass its depressing effect on the sympathetic system proper as to render this negligible. On teleological grounds, the intrinsic ineptitude of such an arrangement would render the theory far from attractive. Moreover, Cannon and Britton[14] have recently published evidence that even so slight a stimulus as walking across the floor suffices to call out epinephrine secretion in amounts sufficient to stimulate the denervated heart. It must be remembered in this connection, however, that severing sympathetic nerves results in augmenting the irritability of the terminal mechanism. However difficult to accommodate, the data to the effect that epinephrine in the blood stream does depress sympathetic irritability remains, so far as I am aware, uncontroverted. On the whole, then, in the present state of our knowledge, perhaps the most plausible assumption is that epinephrine consistently and generally exerts a biphasic effect as it has been shown to do in cases of intestinal peristalsis, uterine contractions and blood vessels in muscles. In that case it would serve under ordinary conditions, if present at all, as a sympathetic sedative, as does calcium, another normal constituent of the blood. Under other conditions its stimulating effect would come into play. The apparent paradox is at first thought not attractive. But it is no more unattractive, perhaps, than a similar paradox to which all have become reconciled; namely, that peripheral stimulation of a sensory nerve may result in either fall or rise of arterial pressure, depending on various accompanying conditions, but especially on the amount of stimulus applied. Indeed, this conception of the action of epinephrine will be recognized as conforming precisely to Verworn's theory that inhibition, in general, is due to subminimal stimulation.

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[9] Hoskins, R. G., and McClure, C. W.: The Adrenal Glands and Blood Pressure, Arch. Int. Med. **10**: 343 (Oct.) 1912.

[10] Elliott: J. Physiol. **31**: xx, 1904.

[11] Hoskins and Wheelon: Am. J. Physiol. **34**: 172-185 (May) 1914.

[12] Hoskins: Am. J. Physiol. **36**: 423-429 (March) 1915.

[13] Hoskins and Rowley: Am. J. Physiol. **37**: 471-480 (June) 1915.

[14] Cannon and Britton: Am. J. Physiol. **79**: 433-460 (Jan.) 1927.

RATIONAL BROMIDE TREATMENT

NEW METHODS FOR ITS CONTROL *

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BALTIMORE

Bromide treatment to be rational must, on the one hand, produce the desired effect of the drug and, on the other hand, avoid the danger of bromide intoxication. The foundations of bromide action, and consequently also those of a rational treatment, are based on the relations between chlorides and bromides—the chloride-bromide equilibrium or replacement—which therefore has to be discussed briefly.

Sodium chloride constitutes the greater part of the electrolytes of the body, and its ions are essential for the function of most cells. Since it is constantly excreted, mainly in the urine, it must be constantly replenished. The body maintains its chloride concentration with remarkable constancy. The excretion varies with the salt intake but lags somewhat behind in time. According to Borelli and Girardi,[1] with a steady income, equilibrium is reached within three or four days. If the supply of salt is stopped, excretion falls within three days to a lower level, but the body retains its normal salt content.

The excretion of chlorides can be hastened by the administration of bromides and iodides.[2] Conversely, the administration of chlorides hastens the elimination of these salts.[3]

If bromides are introduced into the body their excretion starts rapidly but proceeds very slowly;[4] so slowly, in fact, that even twenty days after medication has been stopped the excretion of bromides is not completed.[5] Hence, a retention of bromides takes place[6] which is due to the fact mentioned that bromides in part replace chlorides. Thus, a sort of constant "saturation" of the body with bromides takes place, so that after a certain period in prolonged medication no more bromides are retained, and intake and excretion are balanced.[7] The chloride content of the blood is then diminished, the chlorides having been partly replaced by bromides.

A replacement of more than 40 per cent of the chlorides of the blood by bromides, according to Bernoulli,[8] is fatal. Intoxication symptoms generally appear, according to the experiences of Ulrich[9] gained by examination of the urine, when from about 25 to 30 per cent of the total halogens are represented by bromides; there exist, however, individual differences, a fact that must be borne in mind.

After this, it is easily understood that the action of the bromide medication depends not only on the bromide intake but also on the chloride intake. That is to say, prescribing bromides without knowing the chloride intake or the bromide saturation is the same as letting a patient take as much or as little bromides as he chooses. The relations are clearly demonstrated in chart 1, which was constructed from Bernoulli's figures. Abscissa and ordinates of the chart give the intake of sodium chloride and sodium bromide; the curves give the urine saturation level. The fact is emphasized by Ulrich, that with equal doses of chlorides and bromides, bromide intoxication is produced in three weeks.

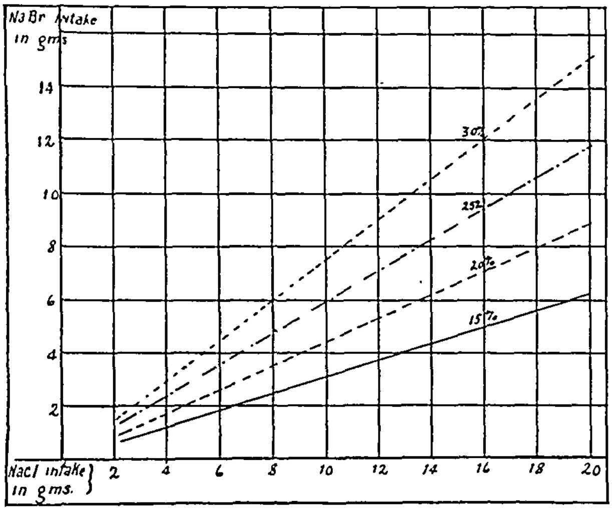

Chart 1.—Graphic illustration (from figures of Bernoulli) that the maintenance of a certain level of urine bromides to total urine halogens is dependent on the variation in sodium chloride intake as well as bromide intake.

The methods for determining bromides in the blood or urine, i. e., in the presence of chlorides, are somewhat tedious and require a chemical laboratory outfit as well as some technical skill.

Walter[10] described a color reaction between gold chloride and bromides; his colorimetric method, however, according to Bieling and Weichbrodt, is practically useless, the limits of error are so great. Hauptmann's[11] modification gives better results but requires a colorimeter.

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* From the Laboratory of Internal Medicine, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital.

[1] Borelli and Girardi: Zentralbl. biochem. Bioph., Ref. **18**: 159, 1915, cited by Sollmann.

[2] Ellinger and Kotake: Arch. f. exper. Path. u. Pharmakol. **65**: 87, 1911; Med. Klin. 1910, p. 1474. Laudenheimer: Zentralbl. f. Neurol., 1910, p. 461. Markwalder: Arch. f. exper. Path. u. Pharmakol., 1917, p. 81. Von Wyss: Arch. f. exper. Path. u. Pharmakol. **49**: 186, 1906; **55**: 266, 1906; **59**: 196, 1908; Deutsche med. Wchnschr. **39**: 345, 1913.

[3] Sollmann, Torald: A Manual of Pharmacology, Philadelphia, W. B. Saund

[4] ralbl. biochem. Bioph. **13**: 790, 1912.

[5] mpt. rend. Soc. de biol., 1892, p. 513. Menck Arch. f. exper. Path. u. Pharmakol., 1894, p. 313. Pflaumer: Inaug. diss., Erlangen, 1896.

[6] Frey: Ztschr. f. exper. Path. u. Therap., 1910, p. 461. Von Wyss (footnote 2).

[7] Fessil: München. med. Wchnschr., 1899, p. 1270. Laudenheimer (footnot 2). Von Wyss (footnote 2).

[8] Bernoulli: Arch. f. exper. Path. u. Pharmakol. **73**: 355, 1913.

[9] Ulrich, A.: Schweiz. Arca. f. Neurol. u. Psychiat. **13**, 1923.

[10] Walter: Ztschr. f. d. ges. Neurol. u. Psychiat. **77**, 1922; **99**, 1925.

[11] Hauptmann, A.: Klin. Wchnschr. **4**, number 34, 1925.

I aimed to develop a method which would be simple enough for practical use and not require special equipment, and therefore devised a comparator consisting of tubes containing certain dyestuffs, the color shades of which correspond to the color changes of certain bromide concentrations after the addition of gold chloride.

The principles of the method involve the coagulation of the serum and the addition of gold chloride to the filtrate, producing color changes corresponding to the bromide concentration and varying from a yellow greenish brown to a red brown. The reaction is specific for bromides with the exception of the iodides. Naturally, the coagulate retains some bromide; the retained amount varies slightly with the different protein content of different serums and mainly with the absolute bromide content; this causes a definite but, as will be seen, a negligible, error, in the clinical results. Table 1 shows the errors of different concentrations and with *different serums. It is easily seen that the error* increases with the concentration of bromides. As the comparator, however, does not regard differences lower than 25 mg. per hundred cubic centimeters in the weaker concentrations, and in the higher concentrations only differentiates between 200 and 300 mg. per hundred cubic centimeters, the error of the method can be neglected. After all, I do not intend to make a quantitative chemical determination but rather an estimation which serves adequately for practical clinical use.

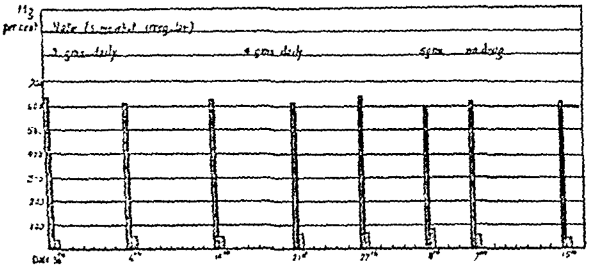

Chart 2 (case 1).—Admission, Sept. 19, 1925.

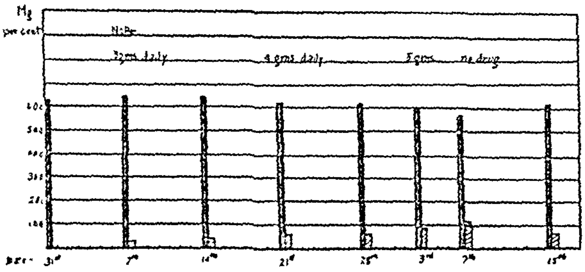

Chart 3 (case 2).—Admission, March 13, 1926.

Therefore, from this standpoint, it seems better to have an approximately exact *method rather than none at* all, and that the method meets this demand can be seen from the cases to be described later.

TECHNIC

The method of procedure is as follows: Ten cubic centimeters of blood is drawn from a vein of the patient and allowed to coagulate. To 2 cc. of serum, 4 cc. of distilled water and 1.2 cc. of 20 per cent trichloracetic acid are added. After standing for half an hour, the mixture is filtered through a small filter. The filtrate must be clear; if necessary, the solution is refiltered. To each cubic centimeter of filtrate, 0.2 cc. of 0.5 per cent gold chloride (Merck) solution is added, and then compared in the comparator with the color tubes. On the color tubes are figures which indicate the milligrams of sodium bromide per hundred cubic centimeters of serum.[12]

Table 1.—*Errors with Different Concentrations and Different Serums*

Bromides Added to Serum, Mg. for 100 Cc.	Bromides Found in Filtrate by Comparator, Mg. per 100 Cc.	Error in Mg.	Error in Percentage
25	24.62, 24.75, 25.0	−0.38, −0.25, ±0	1.5, 1.0, 0
50	46.0, 46.0	−4.0, −4.0	8.0, 8.0
75	64.52, 67.45, 67.65	−10.48, −7.55, −7.35	13.9, 10.1, 9.8
100	91.85, 93.23, 98.0	−8.15, −6.77, −2.00	8.2, 6.8, 2.0
150	130.3, 130.7, 134.0, 132.3	−19.7, −19.3, −16.0, −17.7	13.1, 12.9, 10.7, 11.1
200	177.5, 175.9, 172.6	−22.5, −24.1, −27.4	11.3, 12.0, 13.7

Having described the mode of action of the bromides in its relation to the chlorides, and the method and apparatus for approximate bromide determination, I will demonstrate the practical application of the method in a series of cases.

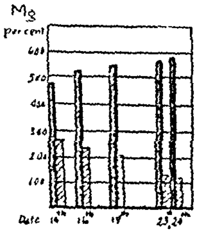

Chart 4 (case 3).—Admission, April 13, 1926

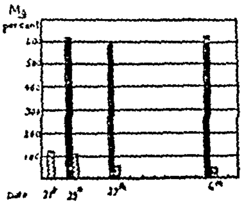

Chart 5 (case 4).—Admission, April 16, 1926.

REPORT OF CASES

Cases[13] 1 and 2.—Varying doses of sodium bromide were given. The charts (2 and 3) were constructed by determining the total halogen amount of the serum by titration with silver nitrate; the bromides were then determined in the serum with the colorimetric method; the chlorides then could be calculated. The black bars represent the chlorides expressed in milligrams of sodium chloride per hundred cubic centimeters of serum. The shaded areas represent the bromides as sodium bromides per hundred cubic centimeters of serum. Both charts demonstrate how the bromides increase slowly with the increased doses of sodium bromides; they also show how the chlorides are diminished as the bromides increase, and finally how bromides are retained in the blood for quite a length of time after bromide administration has been stopped. The results obtained by this simple method check well with the previous results of those authors who have worked with more exact quantitative methods.

Of greater interest are the observations in pathologic cases.

Case 3.—A woman, aged 23, of the schizophrenic reaction type, having taken bromides in large doses, amount *not* known, before coming to the hospital, was admitted, April 13,

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[12] The comparator with the necessary agents and pipets is manufactured by the La Motte Chemical Products Company, McCormick Building, Baltimore.

[13] In the cases reported, all determinations were made with the colorimeter, with which the percentage of error due to serum absorption of the bromides varies from 0 to —13 per cent. The comparator does not aim to estimate closer than 25 mg. per hundred *cubic centimeters of serum.* Therefore the absorption error can be disregarded, as the comparator allows for variations from 33 per cent in the lower to 12.5 per cent in the higher concentrations. The absorption error therefore always falls within the limits of error of the comparator. Each comparator has been checked against standards with the colorimeter.

1926, with hallucinations, and very severe acne, but without neurologic disturbances.

This was a case of bromide intoxication, the blood containing 264.2 mg. of sodium bromide per hundred cubic centimeters of serum. The acne cleared up rapidly when bromide administration was stopped and sodium chloride solution was given by mouth. The antagonistic displacing behavior of the chlorides stands out plainly.

CASE 4.—A woman, aged 58, had been treated with bromides for some time, doses not known, until suddenly she fell into coma. The disturbance manifested itself in disorientation; drowsy, tearful hallucinations; limitation of the conjugate movements of the eyes; limited, somewhat masklike facial movements; difficulty in swallowing, and regurgitation through the nose; a speech defect suggesting the bulbar type; tremor of the arms; rigidity of the arms and legs to passive movements; hyperactive reflexes; absence of abdominal reflexes, and unstable gait. Because of these symptoms, the case was previously diagnosed as questionable encephalitis, cerebral arteriosclerosis, or pseudobulbar palsy.

When the patient was admitted, April 16, 1926, she had been for some time without bromides, so that the serum bromide content which, April 21, was still 124.4 mg. per hundred cubic centimeters of serum, must have been considerably higher before this date, and in the toxic zone. The condition cleared up rapidly after the administration of salt solution.

CASE 5.—A woman, aged 45, had been taking bromides at home for "nervousness," doses unknown, since the spring of 1925. She developed acute delirium, June 26, 1926, and when admitted, June 28, showed restlessness, disorientation, misinterpretations, visual hallucinations, tremor of the tongue and hands slurred speech, ataxic, reeling gait, and acne. The sodium bromide content of the serum was 339 mg. per hundred cubic centimeters. Treatment with about 150 grains of sodium chloride (10 Gm.) daily in water caused the ataxia to subside in five days; in ten days the speech was clear, and hallucinations were less vivid, and the sixteenth and seventeenth days were free of hallucinations for many hours. The twenty-third day the patient emerged from the delirium, oriented, and with full insight.

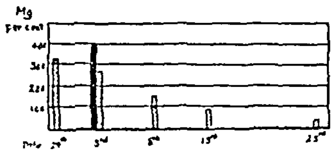

Chart 6 (case 5).—Admission, June 28, 1926.

This was a case of pronounced bromide intoxication with mental and neurologic symptoms. The chart demonstrates that it is sufficient to determine the absolute amount of bromides in the blood without chloride estimation.

CASE 6.—A man, aged 52, who had taken 80 grains (3.2 Gm.) of sodium bromide a day, from May 14, 1926, until May 29, 1926, became sleepy and drowsy, May 29. He was admitted to the hospital June 2, disoriented, delirious and talkative, with visual hallucinations and confabulations. There were thick speech, tremor of the tongue and fingers, absence of abdominal and cremasteric reflexes, and hypalgesia of skin. With chloride administration, the patient recovered completely in eighteen days.

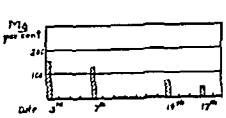

Chart 7 (case 6).—Admission, June 3, 1926.

This patient also represented a case of severe bromide intoxication with delirium and neurologic symptoms, which yielded promptly to bromide elimination.

CASE 7.—A woman, aged 53, had had hypertension with headaches for twenty years. She had taken bromides for five years, amount not known. Now and then morphine had been taken, but the habit had not been formed; the last dose had been taken in February, 1926. There had been five confusional periods with hallucinations since November, 1925. When admitted, May 1, 1926, the patient was approximately oriented. She had visual and auditory hallucinations, tremor of the tongue and underactive knee jerks. Ankle jerks and abdominal reflexes were absent. No medication was given at first; later, salt solution was administered. The visual hallucinations stopped first; then orientation returned. After sixteen days there were free intervals; on the twenty-eighth day the patient was free of mental symptoms and had good insight. She was discharged, May 30, 1926.

As this was one of our early cases, the blood was not tested for bromides until fourteen days after admission. The bromide content was then still 111.3 mg. per hundred cubic centimeters after fourteen days of bromide abstinence. The level on admission must therefore have been considerably higher.

CASE 8.—A woman, aged 61, had suffered from sleeplessness since October, 1926. She took approximately 90 grains (5.8 Gm.) of bromides from the end of October, 1926, to November 15. When admitted to the hospital, November 17, she was delusional, disoriented, and subject to misinterpretations; she had thick speech, difficulty in walking, muscular incoordination, blood pressure from 160 to 190, and albumin, + +, in the urine. The patient developed bronchopneumonia and died, November 27. The bromide content, November 18 (nine days before death), was 207 mg. per hundred cubic centimeters of serum.

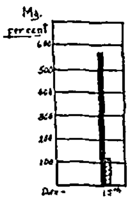

Chart 8 (Case 7). — Two weeks after admission.

This case is one of a bromide intoxication in a patient with cardiovascular disorder. It is of interest that the patient went through a confusional state with speech difficulty in July, 1926, which cleared up entirely with cessation of bromides.

CASE 9.—A man, aged 50, had had difficulty in sleeping since June, 1926. He took 45 grains (3 Gm.) of bromides a day from August 17 to September 17. Then he became delirious, and was admitted, Sept. 20, 1926. He was disoriented, with hallucinations, poor insight and memory, and restlessness. The pupils were irregular, and reacted sluggishly; the tongue protruded to the left with tremor. There was tremor of the lips and fingers; the Romberg sign was positive, the speech slurred, and the writing poor. The blood and spinal fluid (0.4 cc.) Wassermann reactions were positive; 14 cells; Pandy, + + + +; mastic and gold curve, negative. September 28, the patient exhibited his first period of clearness; October 3, he became clear; October 6, there was a flareup of fear and hallucinations, which occurred also on October 11, 18 and 22. He was discharged, October 25, with no personality deterioration, normal memory and judgment. The speech was slightly slurred. The pupils were normal and the neurologic examination was negative.

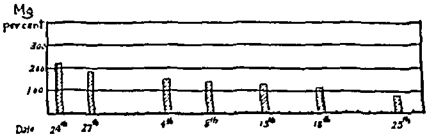

Chart 9 (case 9).—Admission, Sept. 20, 1926.

This case represents a bromide delirium in a case of cerebrospinal syphilis. Without the bromide determination, we would not have recognized that there was a superimposed bromide intoxication and might have thought that the clinical picture was merely due to metasyphilitic disturbances.

CASE 10.—A woman, aged 51, feeling "run down," began, June 17, to take about 100 grains (7.5 Gm.) of bromides a day. She became weak and forgetful; August 5, she was forced to go to bed, because of delusions. August 13, the condition became worse, with disorientation, delusions, and thick speech. When admitted, Aug. 17, 1926, the patient was disoriented, with confabulations, delusions, auditory hallucinations and no insight; test phrases were badly slurred, and abdominal reflexes were absent. August 23, the hallucinations and delusions persisted, although sometimes the patient was oriented. Salt was given by mouth. September 13, the patient was still disoriented to a large extent, with delusions and hallucinations. September 16, she felt better. During the next eight days she was only once delirious during the night;

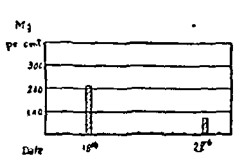

Chart 10 (case 10).—Admission, Aug. 17, 1926.

there was growing insight. October 6, the mental condition was quite clear.

This was a case of bromide intoxication which presented mental symptoms of a delirium.

COMMENT

The series of cases shows how the clinical picture of bromide intoxication varies. The only sign may be a very severe acne; in other cases neurologic symptoms may occur which, together with euphoria, dulness and defective memory, suggest the clinical picture of a general paralysis; again, other cases show delirious states and some finally show an admixture of the bromide intoxication symptoms with the symptoms of the more fundamental disease or reaction type.

It is not my intention, however, to enter on the clinical aspects of the bromide intoxication. I wish only to draw attention to two facts. The first is the frequency of bromide intoxications, which still seems to be somewhat underestimated and is demonstrated by the fact that I was able in six months in 238 admissions to find fifty patients who had bromides in their blood and twenty who showed signs of bromide intoxication—a total of about 21 per cent of admitted patients who had been treated previously with bromides. The second point is that in most of these cases intoxication probably could have been avoided. This is seemingly contradicted by the fact that, in some cases, the doses that were taken were by no means abnormally high. But this contradiction is only apparent. An intoxication can doubtless be produced with the small customary doses of sodium bromide because the chloride intake may be too low; i. e., in an individual case the "normal" dosage of bromides is too high in relation to the patient's chloride balance. That this was the case in most of my patients can be seen by the high absolute bromide content of the serum. It has been demonstrated that equal doses of chlorides and bromides lead with certainty to an intoxication in about seventeen days to three weeks.[14] The routine dosage of bromides (from 45 to 75 grains [3 to 5 Gm.] a day) is based on the chloride intake of about 15 Gm. (225 grains) a day. But not all persons have a chloride intake of 15 Gm. Table 2, which shows the urinary chloride excretion and consequently also the intake, taken from patients who had no other disease leading to a disturbance of chloride metabolism, such as pneumonia, cancer or nephritis, and who were on the relatively uniform hospital diet, demonstrates the enormous individual variations in chloride excretion and therefore intake. Taking into account the interaction of bromides and chlorides, it is evident that if these individual variations of chloride intake are not considered it is merely a matter of luck whether bromide treatment is successful or not, or whether it does or does not lead to intoxication. These facts justify a demand for a clinical method for bromide estimation, and the use of the method for patients under bromide therapy.

TABLE 2—*Urinary Chloride Excretion and Intake*

	Volume, Cc (24 Hours)	NaCl, Gm
E S	1,205	2.86
N R	220	2.68
J S	1,000	7.74
A K	470	6.61
J T	2,225	6.68
F H	1,775	9.05
C	1,175	3.76
V M	1,350	7.90
S T	900	4.59
B	1,100	5.28
C H	1,150	5.40
R	2,360	13.9
K	650	7.1
W G	1,375	7.56
A M	1,155	5.20
T D	2,065	15.84
A B	630	3.59
E T	825	8.2
W G.	1,595	10.4
J H	1,950	7.6
H	1,110	9.3
W B	1,000	13.2
M	1,275	8.92
W D	1,720	6.88
G.	1,665	5.04

The ideal control would be to determine both the chloride and the bromide content of urine and blood. That, however, will be an impossible task for a practitioner and a very difficult one for institutions, such as state hospitals, which have to deal with a large number of patients under bromide treatment. Therefore, I have tried to present some simpler methods.

URINE TEST IN BROMIDE INTOXICATION

For the chemical diagnosis in a questionable case of bromide intoxication, it will be advisable first to try a simple test for bromides in the urine. If this is negative bromide intoxication can be excluded. This method is as follows:

To 25 cc. of urine about 1 Gm. of animal charcoal is added, mixed well, allowed to stand for a few minutes, and then filtered. To exactly 5 cc. of filtrate measured into a test tube, 1 cc. of 20 per cent trichloracetic acid and 1 cc. of 0.5 per cent gold chloride solution is added; a brown shade indicates the presence of bromides. In order to be able to recognize the color change more easily, it may be advisable for those not yet acquainted with the reaction to prepare the following bromide solution and to treat as follows: To 0.5 cc. of 0.1 per cent sodium bromide solution, 4.5 cc. of water, 1 cc. of 20 per cent trichloracetic acid and 1 cc. of 0.5 per cent gold chloride solution are added. (It must be borne in mind that the presence of iodides will be indicated by a precipitation, whereas in the absence of iodides no precipitation appears.)

If this test is positive, then it will be necessary and essential to determine the absolute bromide content of the serum with the comparator.

For the control of any prolonged bromide treatment it would, of course, be of value if possible to determine the patient's chloride balance in the urine before starting treatment. This control of the urine chlorides could prevent overdosing the patient from the onset. The salt intake, doubtless to a large extent, is determined by individual habit, and the estimation of the chlorides in the urine would inform one, for instance, whether the patient is taking 5 or 10 Gm. daily. In the former case, the bromides may not be prescribed in higher doses than 2 Gm. (30 grains) a day, as a patient otherwise would doubtless develop an intoxication within about twenty days; on the other hand, with a salt intake of 10 Gm. or more, the dose of 30 grains of bromides a day would probably be insufficient.

However, whether this preliminary chloride determination can be made or not, I should like to lay the main stress on the importance of determining the absolute bromide content of the serum. The importance of such a control for the prevention of bromide intoxication has been illustrated by the cases reported.

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[14] Toulouse: Gaz. d. hop., 1900, p. 10; Rev. de psych., 1900; Gaz. d. hop., 1904. Ulrich (footnote 9).

BROMIDE TREATMENT IN EPILEPSY

Finally, I will add a few words about the bromide treatment of epilepsy.

Ulrich was the first to control the bromide saturation or relative bromide content of his epileptic patients; that is to say, the percentage of total halogens in the urine represented by bromides. He found large individual differences as to the optimal individual saturation. Of forty-eight epileptic patients who had been kept free of convulsions for several years by bromide therapy, ten showed a relative bromide content of from 1 to 5 per cent; nineteen, from 5 to 10 per cent; five, from 10 to 15 per cent; eight, from 15 to 20 per cent, and six, from 20 to 25 per cent. Ulrich's results probably are the best ever obtained by bromide treatment; a status epilepticus has not occurred with his house patients, numbering from 300 to 400, since 1911. These results can be obtained only by a chemical study and control of the patient's urinary or blood bromides. That this method has not been taken up as readily as one would have expected, and as would have been justified, is due to the complexity and methodological difficulties of the Berglunds method, even in Bernoulli's modification, which is used by Ulrich. I hope I have eliminated this difficulty to a great extent by having given a relatively simple technic.

Although my work, to date, with this simplified technic has not been extensive (fifty cases), I feel justified in setting rough standards as to the safety limits of bromide content in the blood serum. I feel that it is not wise to exceed a limit of 125 mg. of sodium bromide per hundred cubic centimeters of serum for the average patient. It seems likely that the bromide tolerance of patients suffering from anemia, malnutrition, cardiorenal disease, and possibly also alcoholism and drug addiction, is lower, and therefore this arbitrary standard may be a little high in these particular cases. On the other hand, in some epileptic patients it is well known that certain factors tend to increase the frequency of convulsions (such as menstruation, unavoidable periods of overwork and excitements, or dietary alterations of salt balance), and under these circumstances it will probably be wise to allow this level of blood bromides to be exceeded. When the blood bromides increase beyond 150 mg. per hundred cubic centimeters of serum, I believe that the patient is liable to intoxication symptoms and therefore speak of bromide content above this figure as the "toxic zone."

As a matter of practical handling of epileptic patients, I recommend the following: It is wise to keep the patient slightly above the lowest level at which his convulsions have disappeared. This slightly increased level will guard against the effect of any sudden increase in salt intake. This will eliminate the possibility of the development of status epilepticus—an ever present serious danger for the epileptic patient. I feel that if convulsions, in the more severe cases, cannot be controlled by bromides up to from 170 to 200 mg. per hundred cubic centimeters of serum, there is no use to attempt to push bromide therapy—in fact, I should advise against maintaining this level for any length of time.

SUMMARY

There are two simplified methods for determining the extent of bromide intoxication: (1) a qualitative test for bromides in the urine, and (2) a comparator method for the clinical estimation of the bromide content of the blood serum.

The qualitative urine test is useful in (*a*) cases suspected of being bromide intoxications, and (*b*) puzzling delirious and organic neurologic cases, which not infrequently prove to be due to bromide intoxication.

In fact, with the simplicity of the method it deserves to be made a routine urine examination. With the frequency of bromide intoxications, it will well repay the little amount of work it requires.

The control of the bromide content in the serum seems essential when bromides are being used either as a sedative or in the bromide treatment of epilepsy.

The chemical control may help to prevent the mistaking of bromide intoxication for organic brain disease (organic deliriums, epileptic psychosis, general paralysis) in epileptic patients who have been uncontrollably dosed with bromides for a long period of time.

In both cases, whether bromides are used as a sedative or as an antiepileptic, the physician will be enabled by the chemical control to have a clear record of the case and also to be safeguarded against self-prescribed changes on the part of the patient. He will be able to avoid insufficient doses on the one hand and intoxication on the other hand, and thus be in a position to render a bromide treatment more rational and consequently more successful.

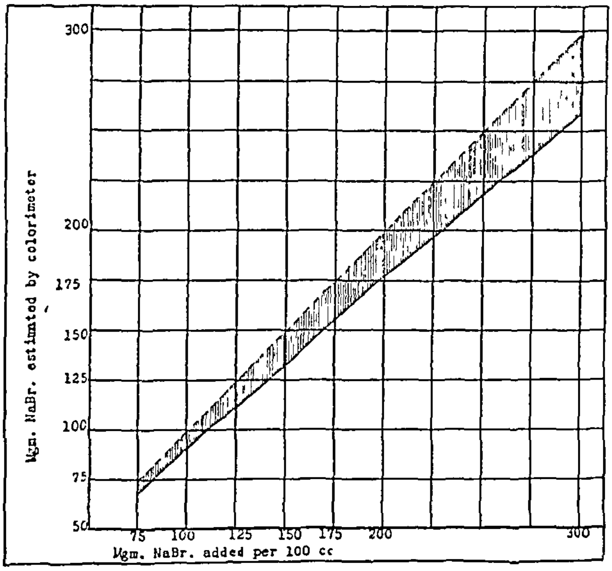

Chart 11.—Shaded area represents error which has been eliminated by standardizing the color tubes in the comparator, accordingly; broken line, sodium bromide in water compared with water standard; solid line, sodium bromide in serum compared with water standard.

A CORRECTION OF COMPARATOR STANDARD TO ELIMINATE ERROR OF SERUM ADSORPTION

Our previous experiments showed that serum adsorbed a certain amount of bromides—this amount increasing proportionally to the concentration of the bromides, and that the amount adsorbed is practically independent of the particular blood serum (between 1 and 4.1 per cent). This adsorption loss is indicated in chart 11 by the shaded portion, which represents the difference in the amount of bromides estimated from watery solution and from serum solutions of known quantities of bromides. The standard solutions in the comparator are corrected to eliminate this error.

THE RATIONALE OF TESTS OF RENAL FUNCTION *

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It did not escape clinicians[1] of a century ago that when a patient with severe renal disease ingests asparagus, turpentine or other substances which impart a characteristic odor to the urine of healthy people, this odor does not appear in the urine. These keen observations were really tests of renal function, in many ways superior to some of the complicated tests that have since been introduced. In this paper I desire to point out that elaborate procedures are unnecessary for clinical purposes, the same end being attained by very simple methods, provided the clinical features of the case are always kept in the foreground. It will first be necessary to consider certain aspects of the pathologic physiology of the kidneys.

THE UNITARY NATURE OF IMPAIRMENT OF RENAL FUNCTION

It is widely held that disease of the kidney may injure the ability of the organ to excrete individual substances, while the excretion of other substances remains unimpaired. But I[2] have pointed out in a previous communication that there is no substantial basis for this view of isolated injury to individual renal functions in diffuse renal disease; available evidence points to there being but one variety of functional injury in renal disease, namely, that involving all the excretory functions of the kidney. In those cases in which there is seemingly circumscribed injury to the ability of the kidney to excrete some individual substance, the cause of the retention of this substance in the organism is not the kidney but some extrarenal factor which results in diminished supply of the substance to the kidney. This universal involvement of all the excretory functions is characteristic of renal functional impairment not only when it occurs in diffuse renal disease but also in such conditions as tuberculous or other purulent disease, polycystic degeneration, or injury to the kidney as a result of stasis following on urinary obstruction.

If any of these variegated anatomic substrata produce impairment of renal function, it is always manifested in the same way, namely, by a diminution in the concentrating power of the kidney for each of the individual urinary constituents. Not one of such substances as urea, uric acid, creatinine or sodium, potassium, calcium, chloride, sulphate, phosphate, indican or urinary pigment can be eliminated in so high a concentration as the normal kidney is capable of attaining. As a result, the total molecular concentration of the urine cannot be raised as high by the functionally impaired kidney as by the healthy organ. As injury to renal function progresses, the maximum concentration which the kidney can attain falls correspondingly, until finally it is unable to elaborate urine of molecular concentration greater than that of the blood.

The excretion of water is impaired along with that of the dissolved urinary constituents. But the kidney's factor of safety for water is very great, and in slowly progressive renal failure this impairment of water excretion is usually masked by polyuria in the effort to compensate for the decreased concentrating power. The actual existence of impaired water excretion can be readily demonstrated in most polyuric patients with markedly decreased concentrating power. If such a patient drinks 1,200 cc. of water within half an hour, he will not excrete practically all within four hours, as does the normal person, but much less, often far under a half. If he can excrete only 400 cc. in the four hours, it is still possible for him to maintain a polyuria, for this amounts to 2,400 cc. in twenty-four hours. As impairment of water excretion progresses, because of renal or extrarenal causes, the patient becomes unable to form a very dilute urine. As a result, the minimum concentration of the urine which the patient can reach gradually rises. But before this, as has been seen, the maximum concentration of the urine has fallen to approximately that of the blood, so the final result is that the molecular concentration of the urine becomes fixed at a level close to that of the blood.

The dilemma of such a patient is obvious. The healthy person can raise urinary excretion by increasing either volume or concentration. But the patient with severely impaired renal function can no longer raise the concentration, so he is dependent solely on raising the volume. And if water excretion becomes progressively less because of advance of the renal process, cardiac failure or a febrile complication, he may no longer be able to raise the volume sufficiently to prevent retention of urinary constituents and consequent uremia.

We do not need complicated laboratory methods to follow these changes in the molecular concentration of the urine and with them the progress of the case. The specific gravity of the urine serves as a measure of the molecular concentration sufficiently accurate for clinical purposes. While it is true, as Addis and Foster[3] have pointed out, that because of the fact that the individual urinary constituents influence the specific gravity to different extents, the less concentrated urine may have the higher specific gravity, it would be rare for this factor to influence the results notably, and it has been demonstrated that the concentration of all the urinary constituents is affected by functional injury to the kidney. When the urine becomes approximately of the same molecular concentration as the blood, its specific gravity is about 1.010, and a figure very close to this is the highest that can be attained by a patient with very severe impairment of renal function. As water excretion becomes more and more impaired, the minimum also approaches this figure. Such a patient may for months have a specific gravity close to 1.010, say between 1.008 and 1.012.

RENAL COMPENSATION AND DECOMPENSATION

Despite the fact that the concentrating power is diminished, the kidney may carry out excretion completely by means of polyuria. According to Albarran's table, at a specific gravity of 1.020 there is usually a urinary volume of 1,350 cc. The same quantity of catabolites can, however, be eliminated by 2,700 cc. of urine of specific gravity 1.010. In analogy to the terms used for diseases of the heart, a patient who, despite impaired concentrating power, excretes completely by means of polyuria, may be said to have a compensated impairment of renal function. Such a patient will have a diminished maximum specific gravity and normal blood reactions. Should the urinary volume diminish sufficiently in such a patient, he goes into the decom-

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* From the Medical Divisions, Mount Sinai and Montefiore hospitals.

[1] Rayer: Traité des maladies des reins, Paris, 1839, p. 70. De Beauvais: Sur le défaut d'élimination des substances odorantes par les urines dans le mal de Bright, Mém. Acad. méd., 1858, quoted by Albarran: Exploration des fonctions renales, Paris, 1905, p. 80.

[2] Fishberg, A. M.: The Unitary Nature of Impairment of Renal Function, Arch. Int. Med. 38: 259 (Aug.) 1926.

[3] Addis, Thomas; and Foster, Marjorie G.: The Specific Gravity of the Urine, Arch. Int. Med. 30: 555 (Nov.) 1922.

pensated stage, in which the lowered maximum specific gravity is accompanied by retention of urinary constituents in the blood. The term renal insufficiency applies strictly only to decompensated cases, just as myocardial insufficiency is used only when such conditions as dyspnea or edema are present. Of course, compensation and decompensation are relative terms, as is the case with the heart, for a patient may be compensated when on a restricted diet but not when eating more.

THE TESTS OF RENAL FUNCTION

In studying the functional ability of the kidney, it must always be kept clearly in mind that deficient excretion of a substance by the kidney is not necessarily the fault of the kidney itself. The kidney is merely one link of a chain which starts with the alimentary canal and ends with the urinary passages, and diminished excretion may be the result of a defect in any link. Thus, chloride may practically disappear from the urine in pneumonia, or urea may be very low in severe liver disease, despite the functional integrity of the kidney. On the other hand, excretion may be completely carried out despite severe functional impairment of the kidney by a compensatory polyuria, or because the intake is so diminished as to be within the powers of the injured kidney.

THE URINARY TESTS OF RENAL FUNCTION

Simple inspection of the urine often affords a very good idea of the functional state of the kidneys if one has the clinical features of the case in mind. Thus, if the urine of a patient with cardiac insufficiency is highly colored and of a high specific gravity, it is practically certain that renal function is good. On the other hand, if the urine of such a patient is light in color and of low specific gravity, it is very probable that the kidneys are severely injured, and further investigation is necessary. Such simple inspection of the urine in a comatose hypertensive patient will often enable one to rule out uremia. Similar considerations apply to patients who are vomiting, sweating profusely or forming ascites as a result of cirrhosis of the liver. In all instances in which there is prerenal deviation of water, the urine should be of high concentration, and if it is not one must look for impairment of renal function. Conversely, if the patient is absorbing edema or a serous effusion, the heart is improving as a result of digitalization, or the patient is drinking copiously, the urine may be very dilute despite intact kidneys. Nocturia in a patient not suffering from myocardial insufficiency should always cause one to look for renal mischief.

Almost all the urinary tests of renal function are of two varieties, balance tests and concentration tests.

BALANCE TESTS

In balance tests, a known quantity of some substance which is excreted in the urine is given either by mouth or by injection, and the quantity eliminated in the urine in a given time is measured. Balance tests with urea and sodium chloride were extensively used, but now the most popular form of balance test is that carried out with dyes, which can be estimated by simple colorimetric procedures in the urine, removing the necessity for troublesome chemical determinations. Of these phenolsulphonphthalein seems to be the best, and has been almost exclusively used in this country since its introduction by Rowntree and Geraghty.[4]

In the phenolsulphonphthalein test, the total excretion of the dye in two hours is measured. But it has been shown in the foregoing section that good excretion does not necessarily mean good renal function, while poor excretion is not always indicative of poor renal function. In cardiac failure the output of phenolsulphonphthalein may be as low as in very severe renal diseases. On the other hand, the normal quantity of the dye may be eliminated in two hours in the compensated phase of impaired renal function, despite severe injury to renal function. I have many times seen a phenolsulphonphthalein output of 50 per cent, even 65 per cent, in two hours in patients with contracted kidneys who were unable to concentrate above 1.010. The compensatory mechanism that keeps the chemical condition of the blood normal in these cases also serves to secure adequate excretion of phenolsulphonphthalein. Phenolsulphonphthalein is a substance which is normally highly concentrated by the kidney, and when renal function is impaired the concentrating power for the dye, as for all other substances, is decreased. However, it may nevertheless be excreted in normal amount, though in greater dilution, despite the impairment of renal function. In accord with this, Snowden[5] has shown that, in severe functional impairment of the kidney, the phenolsulphonphthalein output varies more or less directly with the volume of the urine and can be increased by the free administration of water. I have repeatedly observed this phenomenon; and those who endeavor to "stimulate better excretion" by having the patient drink several glasses of water before injecting the dye are merely masking the impairment of renal function, if this is present.

For these reasons I do not believe the phenolsulphonphthalein test to be nearly as instructive as the concentration tests, which show specifically whether or not the function of the kidney itself is disturbed. The same holds for the innumerable other balance tests with foreign substances—potassium iodide, sodium salicylate, sodium thiosulphate, various dyes and diastase—or with such normal urinary constituents as urea, sodium chloride or creatinine. All suffer from the same defect—they measure excretion in the urine, which may be diminished as a result of either renal or extrarenal causes, or maintained at a good total despite markedly injured kidneys, without the possibility of differentiating by these tests alone.

CONCENTRATION TESTS

The theory of the concentration test is to place the patient under conditions which cause the normal person to elaborate urine containing one or more constituents in high concentration, and observe whether the patient is able to attain this concentration. Since the concentration tests study the very nature of impairment of renal function, diminution in concentrating power, I believe them to be, in general, the best tests of renal function available at present.

The urea concentration test of Maclean and de Wesselow[6] consists in giving the patient 15 Gm. of urea by mouth and estimating the percentage of urea in the urine one hour and two hours later. If the kidneys are healthy, the urea concentration exceeds 2 per cent. If renal function is seriously impaired, the urea concentration is less than 2 per cent and may be under 1 per cent. The urea concentration test is correct in principle

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[4] Rowntree, L. G., and Geraghty, J. T.: The Phthalein Test, Arch. Int. Med. 9: 284 (March) 1912.

[5] Snowden, R. R.: Variation of the Phenolsulphonphthalein Excretion with the Urinary Volume in Chronic Interstitial Nephritis, Arch. Int. Med. 28: 603 (Nov.) 1921.

[6] Maclean, Hugh; and de Wesselow, O. L. U.: On the Testing of Renal Efficiency, Brit. J. Exper. Path. 1: 53 (Feb.) 1920.

—for because of the unitary nature of impairment of renal function, if the urea concentrating power is impaired, the same holds true for the other urinary constituents—and is undoubtedly one of the best available methods for studying renal function. However, though exceedingly simple in execution, it requires a chemical determination in the urine. As equally good results can be obtained with the specific gravity test, involving only the determination of the specific gravity of the urine, I believe the latter to be better suited for general use.

The specific gravity test was first popularized by Volhard.[7] His procedure consists in giving the patient 1,500 cc. of water to drink within three quarters of an hour in the early morning, and then nothing but a dry diet for the rest of the day. Following the ingestion of the water, the specific gravity of the urine drops below 1.002, and the amount of water taken is eliminated in about four hours. Later in the day, the specific gravity mounts, passing 1.025 late in the afternoon.

I have found that there are serious disadvantages in performing the dilution and concentration tests on the same day. In the class of patients in whom tests of renal function are most often needed, those with arterial hypertension, there is often a greater or lesser degree of circulatory weakness. In such patients the deficient circulation may prolong the excretion of the ingested water for many hours, so that observation through the day of the test may not reveal the true maximum concentrating power of the kidneys and simulate impaired renal function. For this reason, I perform the concentration test alone, using the following simple method:

> About 6 o'clock of the evening before the test the patient has his usual supper, which should not contain more than about 200 cc. of fluids. After this he neither eats nor drinks anything until the tests is over. Before retiring he empties the bladder; this urine is discarded. On wakening in the morning he passes urine, which is kept in a separate bottle. He remains in bed and urinates one hour later and again an hour after this, each urine being kept in a separate bottle. The specific gravity of each of the three specimens is measured, and the highest taken as the patient's maximum.

The patient has had, with little inconvenience, about sixteen hours in which to concentrate. If kidney function is unimpaired, the specific gravity will exceed 1.025, often going as high as 1.032. As mentioned above, in the severest impairment of renal function the specific gravity is only 1.010, and in intermediary cases figures between these extremes are obtained. In patients with true uremia the maximum is under 1.020, and usually much closer to 1.010. In every case exhibiting low specific gravity, it is important to observe whether edema is being evacuated, for this may simulate inability to concentrate.

I have found this simple variety of concentration test the most generally useful method for studying renal function. It causes so little inconvenience to the patient and so little trouble to the physician and nursing staff that it can be repeated as often as desired. Since adopting the specific gravity test, I have rarely used any other urinary test of renal function.

The dilution test has been briefly discussed. Impaired water excretion in chronic interstitial nephritis is most often of extrarenal origin, being due to the formation of edema or cardiac failure, but, as has been shown, it may be a manifestation of impaired renal function. If the impaired water excretion is due to extrarenal causes, the specific gravity of the urine will be high; if a manifestation of renal failure, the specific gravity test will give a low result. For these reasons the concentration test usually suffices, and we can mostly dispense with the dilution test.

The use of test meals (Schlayer and Hedinger,[8] and Mosenthal[9]) is another variety of concentration test. Here, the changes in the specific gravity, urea and chloride concentration following meals are studied. As equally good information as to the functional state of the kidneys can be obtained from the simple specific gravity test, this more complicated procedure seems superfluous.

THE CHEMICAL CHANGES OF THE BLOOD

Despite severe impairment of renal function, the chemical composition of the blood may be entirely normal—either because the great factor of safety of the kidney has not been exceeded, or because the patient has so adjusted his food intake as not to exceed the functional capacity of the kidneys, or finally because the diminished concentrating capacity of the kidneys is balanced by a relative polyuria. It is obvious that this compensated stage can be detected only by one of the tests of urinary concentration. But for the detection of the onset of decompensation—true renal insufficiency—the chemical condition of the blood must be studied to note the accumulation of urinary constituents in the blood.

Either the blood urea or total nonprotein nitrogen serves as a satisfactory indicator of retention. Creatinine, uric acid and, in Germany, indican are other urinary constituents that are frequently estimated in the blood in studying renal function. As these more complicated determinations rarely afford any information that is not furnished by urea or nonprotein estimations,[10] they can be dispensed with for clinical purposes. The custom which is so widespread in hospitals of determining nonprotein nitrogen, urea, creatinine and uric acid in all patients with kidney disease seems to me to be a great waste of time and money.

It must always be borne in mind that even maximum accumulation of urinary constituents in the blood does not prove that the trouble is primarily with the kidney. Thus, the nonprotein nitrogen of the blood may rise to great heights as a result of severe vomiting or diarrhea, because so much water is thus lost extrarenally that little or none is available for the kidney to excrete the other urinary constituents, though it is perfectly capable of doing so. In such cases the specific gravity differentiates between rentention of renal and extrarenal origin.

SIMULTANEOUS STUDY OF BLOOD AND URINE

By comparing the urea content of the blood and the urine, Ambard[11] has evolved a formula for calculating a constant which, he believes, is a delicate indicator of the efficiency of the kidney. But Maclean[12] has pointed out that Ambard's formula is affected almost entirely by variations in the urea content of the blood, and relatively little by changes in the composition of the urine. The result is that the Ambard constant may be practically normal in the presence of severely impaired renal function, provided it is in the compensated stage. I have seen patients who could not concentrate above 1.012 with the Ambard constant within the normal limits.

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[7] Volhard: Ueber die funktionelle Unterscheidung der Schrumpfnieren, Verhandl. Deutsch. Kong. f. inn. Med. **27**: 735, 1910.

[8] Hedinger and Schlayer: Ueber die Pruefung der Nierentaetigkeit durch Probemahlzeit, Deutsches Arch. f. klin. Med. **114**: 120, 1914.

[9] Mosenthal, H. O.: Renal Function as Measured by the Elimination of Fluids, Salt and Nitrogen, and the Specific Gravity of the Urine, Arch. Int. Med. **16**: 733 (Nov.) 1915.

[10] Fishberg, A. M.: The Interpretation of Increased Blood Uric Acid in Hypertension, Arch. Int. Med. **34**: 503 (Oct.) 1924.

[11] Ambard: Physiologie normale et pathologique des reins, Paris, 1920.

[12] Maclean: Modern Methods in the Diagnosis and Treatment of Renal Disease, ed. 2, Philadelphia, 1924, p. 70.

SUMMARY

Since impairment of renal function consists in a diminution in the concentrating capacity of the kidney, the most logical and direct tests of renal function are those which measure the concentration of one or more urinary constituents.

The most useful variety of concentration test, requiring no laboratory facilities, is the specific gravity test, for which the technic is simple.

Compensated and decompensated stages of impaired renal function are to be distinguished. In the compensated stage, there is impairment of concentrating power but excretion is completed by a relative polyuria, so there is no retention of urinary constituents in the blood. This stage can be detected by a concentration test. In the decompensated stage, the diminished concentrating power is accompanied by retention.

Tests which measure the quantity of some substance (as phenolsulphonphthalein) excreted are deficient in that they do not detect the compensated stage of impaired renal function. Such tests may yield subnormal results in consequence of extrarenal factors, as cardiac failure, though renal function is intact. Both these errors are avoided by the simple specific gravity test.

1136 Fifth Avenue.

THE INCREASE IN HEART DISEASE

PARTIAL EXPLANATION IN INCREASED PROPORTION OF POPULATION INJURED BY CERTAIN INFECTIOUS DISEASES: PRELIMINARY NOTE *

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DES MOINES, IOWA

Numerous recent articles have served to call attention to the increasing number of persons who are dying from heart disease.

Thus, in the registration area of the United States, the number of deaths from heart disease per hundred thousand of population has gradually increased from 132 in 1900 to 185 in 1925.

The two reasons that have been given for this increase are the strenuous life of today and the increased length of life, which permits more people than ever before to reach the "heart disease" age.

I herewith present an explanation for at least a portion of the increasing mortality from heart disease. It is a reason which, so far as I know, has not before been presented. This explanation furthermore offers great hope for a reduction—possibly a considerable one—in the number of cases of this disease in the course of the coming years.

Heart disease is in large part the result of injury to that organ by an infection that occurred some years previous. There is, at the present time, a greater proportion of our population which has been maimed by scarlet fever and probably also many other diseases, including rheumatic fever and syphilis, than there were ten or twenty years ago.

In the accompanying table are presented the morbidity and mortality rates from scarlet fever per hundred thousand of population in Massachusetts from 1880 (mortality) and 1895 (both mortality and morbidity) to 1926.

Mortality and Morbidity Rates from Scarlet Fever

Year	Morbidity Rate	Mortality Rate
1880	(Not available)	32.1
1885	(Not available)	30.2
1890	(Not available)	8.8
1895	243.7	19.3
1900	227.9	11.8
1905	136.4	3.9
1910	233.2	7.5
1915	232.3	4.9
1920	265.2	5.5
1925	248.2	2.8
1926	268.4	(Not yet available)

It will be noted that whereas there has been no particular change in the morbidity rate there has been a marked reduction in the mortality. This speaks very highly for the effective work of the physician in the treatment of this disease, although the decrease may be partly explained by a more mild type of infection.

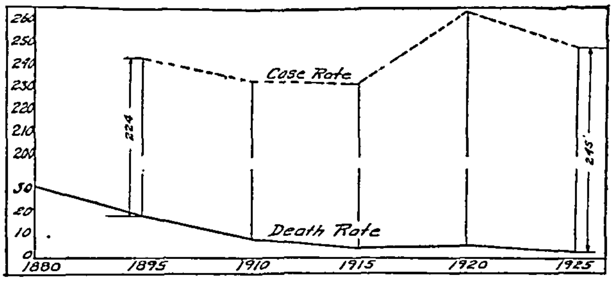

Chart 1.—Case and death rate of scarlet fever in Massachusetts, per hundred thousand of population, from 1880 (and 1898) to 1925. Whereas there has been an actual increase in the case rate, there has been a marked reduction in the death rate, leaving a larger proportion of persons maimed by the disease in 1925 than in 1895.

This means that whereas in 1895 there were 224 out of every 100,000 persons living in Massachusetts who survived an attack of scarlet fever that year, in 1925 there were 245 persons per hundred thousand of population who thus survived (chart 1). All who survive an attack of scarlet fever are probably more or less maimed by it. The injury done may not become apparent until twenty or more years later, when it may reveal itself in the form of disease of the heart, kidneys or other organs.

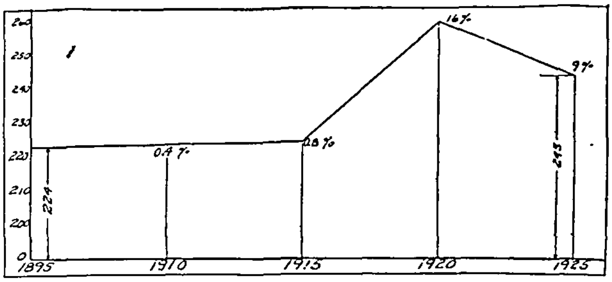

Chart 2.—Number of cases of scarlet fever per hundred thousand of population in Massachusetts which did not prove fatal but in which, by virtue of having had the disease, the persons concerned were presumably somewhat injured. The increase from 224 in 1895 to 245 in 1925, was an increase of 9 per cent. There was a progressive increase in practically every year after 1895. The cumulative increase for the twenty year period is about 50 per cent.

In 1925 the proportion of the population of Massachusetts that was presumably injured by scarlet fever that particular year was 9 per cent higher than in 1895 (chart 2). Considering that the increase in the number of maimed has been progressively higher for almost every year during the last twenty years, the cumulative increase is estimated as being about 50 per cent.

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* From the State Department of Health, Des Moines, Iowa.

* Read before the joint annual meeting of the Iowa Tuberculosis and the Iowa Heart Associations at Des Moines, Iowa, Feb. 23, 1927.

Even though only a comparatively small proportion of the deaths from heart disease may be due to scarlet fever, the increase in the proportion of the population which has been maimed by this disease may very well explain a portion of the increase in the total number of deaths from heart disease.

Data are now being gathered with the idea of demonstrating the same point in connection with other diseases.

THE TALLEST AMERICAN BOYS *

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Brailsford Robertson,[1] who has given so much attention to growth, says. "To compare groups of children in regard to physical welfare we should compare their average statures and the variabilities thereof "

In a recent paper [2] offering to those who work with boarding and country day school boys averages compiled from observations on that special class of individual, the statement was made that the average exceed in stature the gifted children reported by Baldwin [3] as being "above the best standards for American born children in physical growth status." Owing to the interest and importance attached to height, our statement is worth further evidence

In table 1, accordingly, are shown statistical constants reduced from our raw data, including the mean stature for each age as published in the paper just cited. For comparison we have translated Baldwin's means into metric equivalents and have computed the probable errors of those means; these are not reproduced. In table 2 are instituted the comparisons, for each age group, between the mean heights in the two series. The differences we have used without "weighing" (that is, without multiplication by the number of individuals at that age, because that number was not the same in the two series). It is clear in table 2 that the boarding school boys are equal to or taller than the California gifted at all ages. The advantage in stature amounts at some ages to 3 3 cm., or 2.4 per cent above the average height for that age of the California gifted, with an average for all ages of 1.9 cm., or 1.4 per cent. Though relatively small these differences are to be regarded as significant, in the first place because of the fact that the height of the boarders is not exceeded at any age, and secondly in view of the biometric ratio difference between means, divided by probable error of this difference (Diff./P. E. of Diff.). The ratios indicate that:

TABLE 2—*Figures Showing that Eastern Boarding School Boys Are as Tall as or Taller Than the "California Gifted" Boys at All Ages*

Age Nearest Year	Difference Between Means in the Two Series at Each Age, Cm.	Probable Error of Difference	Ratio: Diff /P E. of Diff.
7	0 8	±1 450	(0 5)
8	1 7	±0 903	(1 9)
9	2 7	±0 764	3 5
10	3 3	±0 768	4 3
11	0 0	±0 761	(0)
12	2 2	±0 913	2 4
13	0 5	±0 954	(0 5)
14	3 0	±1 138	2 6
15	3 2	±5 536	(0 6)

Parentheses around ratios indicate that these are not significant.

(*a*) The boarders at ages 7, 8, 11, 13 and 15 are not mathematically proved to be taller.

(*b*) The boarders at ages 12 and 14 are probably significantly taller

(*c*) The boarders at ages 9 and 10 are definitely taller.

Another tall series worth comparing consists of Holt's [4] average of 1758 observations on 350 boys in a private school (Browning) in New York City. These means have been inserted in table 1 since we believe that they have never been published. The average height of our 1,016 boarders is greater at ages 11, 12 and 14, while at ages 13, 15, 16 and 17 the city private boys excel. The general average difference, with regard to size, is in favor of the boarders by 1.2 cm., or 1.4 per cent, above the city private boys.

Still another tall series, by Benedict and Talbot,[5] covers 886 boys from eight New England private

TABLE 1—*Height for Age*

Age Nearest Year	1,016 Boarding School Boys							Holt's New York City Private; Height, Cm.	Benedict and Talbot's Private; Height, Cm.	Faber's San Francisco Public	
	No of Boys	Mean Height		Standard Deviation		Coefficient of Variability				No of Boys	Height, Cm.
		Cm	Probable Error	Cm	Probable Error	Per Cent	Probable Error				
6	9	119 0	0 69	3 06	0 49	2 57	0 41	.	.. ..	2,159	112 8
7	35	124 1	0 64	5 61	0 45	4 51	0 36	. .	.. ..	2,967	118 7
8	49	130 2	0 46	4 78	0 33	3 68	0 25		130 0	3,481	124 1
9	61	135 5	0 54	6 28	0 38	4 64	0 28	.	135 4	4,019	128 0
10	53	139 8	0 51	5 46	0 36	3 91	0 26	.	140 0	4,118	133 8
11	49	142 7	0 56	5 82	0 40	4 08	0 27	142 0	145 1	3,848	138 2
12	40	149 2	0 72	6 76	0 51	4 53	0 34	146 2	151 4	4,239	142 7
13	72	152 8	0 52	6 57	0 37	4 36	0 24	153 3	155 9	4,185	149 7
14	98	162 0	0 59	8 67	0 42	5 34	0 26	159 0	162 7	1,906	154 1
15	122	167 5	0 50	8 12	0 35	4 84	0 21	167 8	169 0	1,286	159 0
16	121	172 2	0 44	7 25	0 31	4 21	0 18	174 7	172.1	1,569	161 6
17	133	174 5	0 35	5 98	0 25	3 42	0 14	176 7	175 1	.... .	.. ..
18	117	176 7	0 39	6 26	0 28	3 54	0 16	.	176 9	.. ..	.....
19	48	176 9	0 57	5 82	0 40	3 29	0 23	. ..	.....	. ..	.....
20	9	177 8	0 85	3 78	0 60	2 13	0 31	.. ..	.....	.....	.....

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* This is one of a series of articles (series B, number 104) by members of the staff of the Behavior Research Fund, Illinois Institute for Juvenile Research, Chicago, Herman M. Adler, M D, director, and from the Hill School, Pottstown, Pa

[1] Robertson, T. B: Growth, in Abt's Pediatrics, Philadelphia 1: 507, 1923

[2] Gray, Horace; and Fraley, Frederick Growth Standards: Height, Chest Girth and Weight for Private School Boys, Am J. Dis Child 32: 554 (Oct) 1926

[3] Baldwin, B T: Anthropometric Measurements, in Terman's Gifted Children, Stanford University Press 1: 135, 1925.

[4] Holt, L. E., Personal communication to the authors, Oct. 30, 1919.

[5] Benedict, F G, and Talbot, F B Metabolism and Growth from Birth to Puberty, Publication 302, Carnegie Institution, Washington, 1921, p 41, Fig 4, and personal communication to the authors.

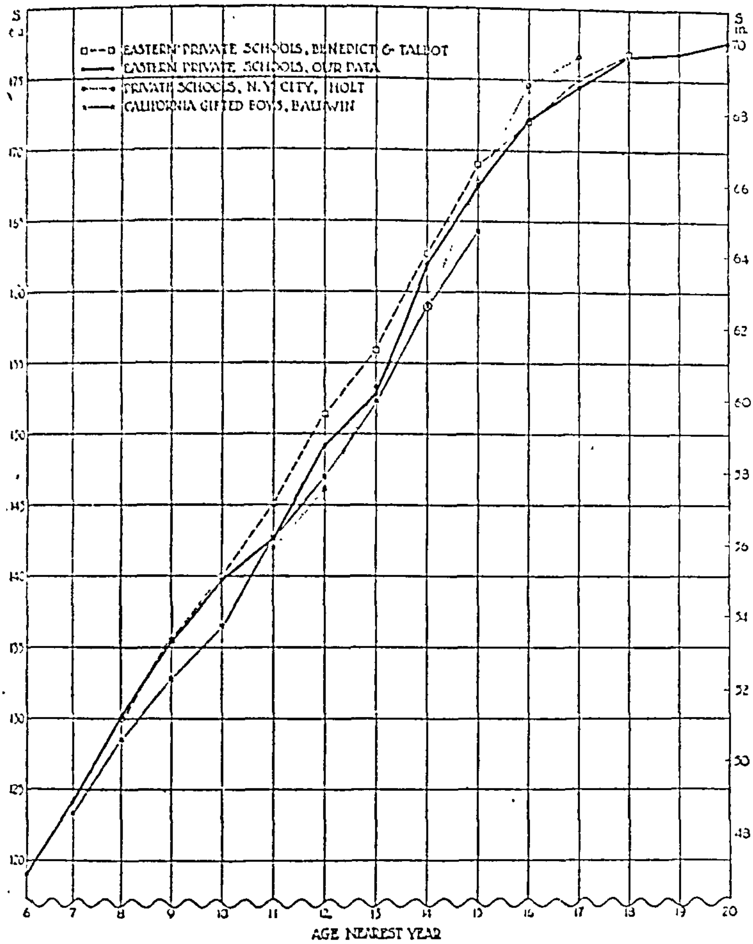

Chart 1.—The tallest American boys.

schools. As the numerical averages were not published, but only a diagram, Dr. Benedict has been kind enough to lend the original drawings, 14 by 10 inches; and from these the average statures have been picked off with dividers and engineer's rule. The accuracy of this procedure is indicated by the fact that the readings as made from the drawing by two of us seldom differed by as much as 2 mm. and never by more. These published means are inserted in table 1. The average height of the Benedict and Talbot private school boys exceeds ours at ages 10, 11, 12, 13, 14, 15, 17 and 18, not at 8, 9 and 16, the general average difference in their favor being 1 cm., or 0.6 per cent. Furthermore, their series has the advantage of Holt's at ages 11, 12, 13, 14 and 15, not at 16 and 17, with this time an average difference in their favor of 1.7 cm., or 1.0 per cent. The record then seems to be with them, although the possibility that this may be due to random sampling cannot be excluded owing to lack of data on the probable errors of their means.

Finally, a recent public school series may be selected for comparison, for example Faber's[6] on San Francisco public school boys. By Professor Faber's kindness, these unpublished figures are included in table 1. Here considerably greater differences are to be expected. The boarders exceed the public school boys at varying ages by from 3.1 to 10.6 cm. (or from 2.1 to 6.6 per cent), with a general average of 6.6 cm. (or 4.7 per cent).

VARIABILITY

The standards of normal variation now in general use are far from satisfactory, according to Faber[7] in a recent report on variability in weight. We shall therefore proceed to some evidence on variability in height. The variability in the stature of boys at a given age may best be measured by the standard deviation (S. D. or σ) expressed in percentage of the mean stature (M); that is, 100 S. D./M.

Comparison with reported coefficients of variability is difficult owing to the scarcity of these.[8] As against two recent series of Baldwin's, our boys' heights evidently vary less (chart 2).

The well known great variability of children at certain ages is apparent in our series. The lowest coefficient of variability was 2.68 at age 8 (omitting ages 6 and 20 because the number of cases in each group was only nine), and the highest coefficient of variability was about twice as great; namely, 5.34 at age 14.

Regarding the fluctuation in the variability at different ages, the curve for the California gifted boys behaves unevenly and differently from the other two curves. Baldwin's Horace Mann curve and our curve show excellent parallelism at age 12 and later (puberty), and though not satisfactory at earlier ages, show striking similarity in the peculiar decrease in variability at age 8, followed by a rise at age 9 and drop again at age 10.

CONCLUSIONS

Even so simple a question as what group of American boys is tallest seems answerable at present only in part: private school boys. More data are necessary to

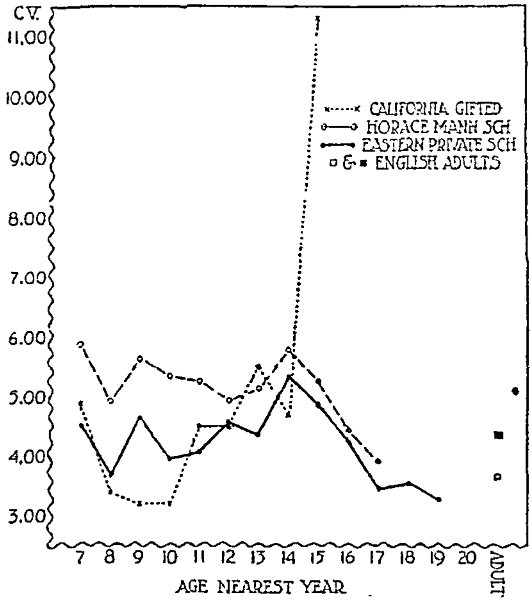

Chart 2.—Variability of height at different ages.

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[6] Faber, H. K.: Personal communication to the authors, July 19, 1926. Unselected material, various racial origins.

[7] Faber, H. K.: Variability in Weight for Height in Children of School Age, Am. J. Dis. Child. **30**: 328 (Sept.) 1925.

[8] Pearson, K., and Lee, A.: Inheritance of Physical Characters, Biometrika **2**: 370 (Nov.) 1903.

Case 6.—F., a man, aged 24, was treated at intervals over a period of ten years for recurring attacks of prostatitis in which no evidence of venereal disease could be found. The cultures from the prostate showed *Streptococcus viridans.* Finally, roentgenograms of the teeth showed two very badly diseased roots, which were removed. Cultures taken immediately from the apexes showed pure *Streptococcus viridans.* Following the extraction of the teeth there was an immediate aggravation of the prostatitis. This rapidly subsided and was well in three weeks without any local treatment. The patient has remained perfectly well now for three years.

Case 7.—A young school teacher came to me because there was pus in the urine following an attack of pneumonia. I found the prostate to be the source of pus, which showed *Staphylococcus aureus.* A roentgenogram of the teeth showed three very bad ones, which were removed. Cultures taken from the root apexes showed *Staphylococcus aureus* and *Streptococcus viridans.*

COMMENT

During the spring and summer of 1926, I saw, in consultation, six cases of acute epididymitis associated with or following attacks of so-called influenza. Unfortunately, cultures were not obtained; but careful study of smears did not show gonococci, nor was there a history of venereal infection. It was assumed that these cases were secondary to the epidemic of influenza-like infection prevalent at that time. However, one must in such cases always suspect that, in some at least, the febrile reaction was only a manifestation of the onset of a deep genital infection; and the acute epididymitis was merely an extension of the infection from the diseased vesicles. Genital infection complicating influenza, however, has been noted by several investigators, Bugbee[2] reported five such cases with prostatic abscess, in one of which the influenza bacillus was found in the prostatic pus.

The importance of recognizing nonvenereal genital infections is quite evident, and the prevailing idea, among physicians as well as the laity, that genital infection means venereal disease must undergo a very radical change. This common idea is somewhat excusable because of the lack of information on the subject both in textbooks and in the literature, and because of the universal prevalence of venereal disease.

Up to 1925 I was able to find only one article calling attention to the subject—that of G. G. Smith,[3] who reported forty cases of nonvenereal prostatitis. This seems almost incredible, for nonvenereal infection has long been recognized by urologists. Since the papers of Smith and myself were published, W. H. von Lackum[4] of the Mayo Clinic has presented and published several very important papers on the subject, calling particular attention to the frequency (24 per cent) of nonvenereal genital infection, and emphasizing the importance of focal infection as an etiologic factor. He further checked his cases by animal experimentation, and was able to reproduce in rabbits many of the typical secondary complications found in his patients by inoculating the animals with the infected prostatic secretions.

Although nonvenereal infections may simulate the venereal type symptomatically, one who has compared a large number of the two types will note some marked differences in the pathologic changes. In the nonvenereal infection of the prostate I have frequently noted that, in spite of a swollen, indurated and tender gland, there may be only a few or no pus cells in the expressed secretion; but if the gland is massaged a day or so following dilation of the prostatic urethra, in such cases one will usually get a copious purulent secretion. Others have made the same observation and advise that, in all patients suspected of harboring infection in the prostate and seminal vesicles, the prostatic urethra be moderately stretched and mildly stimulated with silver nitrate one or more times before these parts are excluded as foci of infection.

I believe that the difficulty thus occasionally experienced in demonstrating infection in the deep genital organs is more frequent in the nonvenereal type, and is due in great part to the manner by which the bacteria are carried there. Thus, when carried to these parts by the blood (or lymph) stream, the bacteria are lodged in the interstitial tissues, where they may cause either an acute or a low grade indolent infectious process. It is only later, and by direct extension, that the infection reaches the gland acini and ducts; while even before this happens one may find a marked periprostatitis or perivesiculitis due to early extension into the serous coats. The infection, being locked in the interstitial tissue, and in close apposition to the blood and lymph capillaries, has thus no natural path for drainage, and slow absorption or abscess formation is to be expected. The counterpart of this is seen in metastatic renal infections, which, as has been so well demonstrated by Cabot and Crabtree, are most frequently seen localized primarily in the renal cortex and about the glomeruli, breaking into the parenchyma or perirenal tissues later. This is noted as characteristic of the coccal infections, while the bacillary infections are most commonly found involving the renal tubules and pelvis.

Venereal infection gains the prostatic acini and seminal vesicles by direct extension along the excretory canals and ducts, involves the interstitial tissue and serous coats later, and is thus less prone to abscess formation because of the natural drainage afforded.

COMPLICATIONS OF NONVENEREAL INFECTION

The importance of nonvenereal genital infection to medicine and surgery is demonstrated by the various remote symptoms and complications which they so frequently cause. Since focal infection has been given such an important rôle, especially through the pioneer work of Billings and later of Rosenow, the prostate and seminal vesicles have been looked on as frequent sources of such infection. However, I have attempted to emphasize, in the studies which I have made, that these structures, frequently found responsible for remote symptoms and complications, owe their disease condition to foci in other parts; but, once being infected, they may continue to shower the system with virulent disease-producing organisms even after the primary foci have been eradicated. Conversely, I do not believe that treatment of the diseased nonvenereal prostate will result in any lasting benefit unless the primary foci are removed.

Among these remote symptoms and complications, pain is the most common and may be referred to various parts. In the lower back it may simulate sacro-iliac disease; in the loin it may be, and frequently has been, mistaken for renal disease, so much so as to have prompted surgical exploration of the kidney in a number of instances. The same may be said of pain, acute and chronic, referred to the lower right quadrant of the abdomen and causing a mistaken diagnosis of appendicitis. I have records of three such cases in which the patients were sent in for appendicitis, but because of prompt action by the surgeon in having the seminal vesicles investigated, the true cause of the pain was revealed and operation avoided.

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[2] Bugbee, H. G.: Infections of the Genito Urinary Tract Complicating Influenza, J. A. M. A. **73:** 1053 (Oct. 4) 1919.

[3] Smith, G. G.: Nonspecific Infection of Prostate and Vesicles, Boston M. & S. J. **189:** 495 (Oct. 11) 1923.

[4] Von Lackum, W. H.: Clinical and Experimental Data on Prostatic Infections, read before the American Urological Association, Boston, in May, 1926.

The pain may radiate down the leg so as to simulate sciatica, but absence of tenderness along the nerve should arouse suspicion as to the referred character of the pain.

Arthritis is perhaps the most common complication of genital infection, both venereal and nonvenereal. Among my series of nonvenereal cases (now more than 150), it was present in 12 per cent. I noted, however, that the arthritis in these cases differed from that seen in gonorrheal infections by being, as a rule, multiple, involving a number of joints, which was in marked contrast to the arthritis of gonorrheal origin, which generally involves only one or two joints at a time. Also, the nonvenereal joint involvement was usually subacute or chronic, in marked contrast to the gonorrheal, which is acute, painful and accompanied by marked swelling in the early stage.

Pyelitis was noted as a complication in 14 per cent of my first sixty-seven cases, and was diagnosed by ureteral catheterization. In this group, one would reasonably question the possibility of the prostatic infection being secondary to the renal infection (descending infection); but, on the other hand, it is possible that the renal infection and genital infection could have occurred simultaneously by metastasis from distant foci, or that the renal infection could be caused by: (1) extension by way of the lymphatics between the deep genital structures and the kidney, or (2) by obstruction of the ureter where it crosses the seminal vesicle, causing partial renal stasis. I believe that the latter explanation holds in many of these cases; and this opinion is supported by the observation of Goldstein and others who have found perivesicular infiltration a frequent cause of ureteral obstruction. While renal infection has been noted frequently in nonvenereal infections of the prostate and vesicles, it is most interesting and instructive to recall that this complication is extremely rare in venereal infections in the male.

Iritis as a complication was present in three of my cases. One of these cases was of peculiar interest, and concerned a young man who, without a venereal history, had suffered with a severe iritis for three months before I saw him. He had had previous examinations of the prostate, which were negative. The only focus of infection was a mild sinusitis. I did not obtain pus from the prostate on the first test; but two days after dilating the prostatic urethra, massage expressed a profuse purulent secretion, which was sterile on smear and culture. I never found tubercle bacilli or any other organisms, yet treatment of the prostate was successful in clearing up the iritis.

Keratitis is another eye complication which I have seen definitely due to the genital infection and which has been noted by others.

Many of these patients present a peculiar mental disturbance varying from a mild anxiety neurosis, apprehensiveness and unwarranted worry to a severe mental depression characterized by morbid ideas which occasionally leads to the putting of these ideas or impulses into real action. I have never seen this mental state exhibited in cases of chronic venereal infection or in cases of benign prostatic adenoma; but I have seen it in marked degree in cases of cancer of the prostate. The explanation of this peculiar complication must be left out of the discussion.

The importance of these infections in relation to prostatic surgery will no doubt be more evident as more study is given to the subject. There are undoubtedly many cases of nonvenereal prostatitis in old men in which the symptoms simulate those of prostatic adenoma and carcinoma, and these should be readily recognized if proper attention is given to a thorough study of each case. I have records of fourteen cases of this type, in all of which the patients are progressing well by treatment directed toward reduction of the inflammatory congestion which caused either partial or complete obstruction.

Operation in such cases is accompanied by much more danger than is the case with uncomplicated benign adenoma.

TREATMENT

The treatment of nonvenereal genital infections consists, briefly, in removing distant foci of infection, and in attention to the local trouble. In acute cases suppuration must be carefully looked for, and when it occurs should demand immediate drainage.

The acute epididymitis, if allowed to go too long, is prone to involve the testis and thus require complete amputation. When it is necessary to do this, the vas deferens of the healthy side should at the same time be divided between ligatures in order to prevent descending infection on that side.

A prolonged unresolved epididymitis should be treated by excision of the epididymis under local anesthesia, care being taken to avoid injury to the testis. Some of these cases are very difficult to differentiate from tuberculous infection, and this fact also should lead one not to delay too long.

The prostate and vesicle infection is best treated by the usual method of massage, sounds and irrigations, but heat applied through the rectum by hot douches is one of the most valuable procedures. Diathermy is also useful, and judging from what experience I have recently had with it, I am inclined to believe that it has great possibilities. Vaccines are sometimes very efficient, but in acute cases must be used cautiously, else the effect may be aggravating rather than alleviating. In hard infiltrations, I have found intravenous administration of sodium iodide an excellent remedy. I have used mercurochrome-220 soluble intravenously without seeing any marked benefit, although careful checking of the urine after its use never showed any harm done.

I think that it is of extreme importance to treat these cases in the acute stage with the most respectful gentleness, avoiding too early or too vigorous massage; and, above all else, not meddling with instruments, especially the cystoscope, in order to satisfy one's curiosity with regard to the kidneys. I learned to observe this rule in the management of my first series of cases, which showed 14 per cent of renal complications. It is only too well known that urethral chill, following instrumentation, means a lighting up of an existing renal infection by showers of bacteria from the prostate.[5] Only in extreme cases should cystoscopy be done, and then only after thoughtful consideration.

CONCLUSIONS

I believe that there is ample justification for the following conclusions:

1. Nonvenereal genital infections are much more common than has been realized, and focal infection in other parts is an important etiologic factor.

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[5] Keyes, E. L.: Urology, New York, D. Appleton & Co.

2. The prostate gland and seminal vesicles, once infected by metastasis, may continue as important foci for spreading the original infection, thus causing remote pains and symptoms easily mistaken for other conditions.

3. The importance of these diseases in their relation to prostate surgery cannot be overlooked, because by proper recognition and treatment of the infection many major surgical operations may be avoided.

4. Although the nonvenereal infections may simulate those of venereal origin symptomatically, there are certain differences in the pathologic changes, based on the etiology, which render the former class much more resistant to treatment and more responsible for complications.

5. That a patient with prostatic infection has had venereal disease some years previously is no reason why his present trouble should be attributed to this old infection in the absence of positive tests; rather, one should consider such cases to be of metastatic origin.

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THE TREATMENT OF EPILEPSY IN CHILDHOOD

FIVE YEARS' EXPERIENCE WITH THE KETOGENIC DIET [*]

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Since 1922 I have given children with idiopathic epilepsy a diet sufficiently high in fat to produce ketosis, as manifested by diacetic acid in the urine. Originally, the diet was tried in order to maintain the ketosis that possibly was responsible for the good therapeutic effect of starvation, but it was soon found to have a more definite curative effect than starvation. The diet, which was originally worked out by Wilder,[1] gave striking results from the first. Even the skeptic was convinced of its efficacy by seeing attacks of petit mal occurring hourly disappear with the establishment of adequate ketosis, and return if for some reason the diet failed to produce the necessary degree of ketosis. That the greater number of epileptic patients would not be affected was to be expected, in view of the fact that the nature of the disease is unknown. The preliminary results promised definite improvement in the treatment of idiopathic epilepsy. The results of the first two and a half years' treatment in the Mayo Clinic were reported in 1925 by Peterman.[2] The time interval in many cases was of necessity too short for a determination of the ultimate outcome, and a review at the present time shows that the results as published are not quite so successful as they were pictured. Of the thirty-seven cases in Peterman's series, convulsions have not recurred in ten.

What shall be called a cure? Is a patient who is free from attacks while in ketosis cured, or must he remain free from attacks after he returns to a normal diet? How shall those patients be classified who are free from attacks while on the ketogenic diet but whose symptoms return as soon as there is a break in it? How shall those be classified who remain free from attacks for six months or more after resumption of a normal diet and then suffer from a return of symptoms? Classification has been difficult, particularly because the patients have been under direct observation only for a short introductory period, and in some cases for occasional control periods. It seems fair to assume that a considerable number of failures is due to inability to control the diet properly, but in order to present the figures as fairly as possible I have counted as failures all cases in which there was not definite improvement after two months or more of the ketogenic diet without the addition of medication. The diet is not easy to carry out, and if it appears to the parents that the results are not definitely favorable after a period of trial, it is difficult to induce them to continue giving it to the child.

COMMENT

One hundred and forty-four young patients have been treated with the ketogenic diet. Twelve of these suffered from symptomatic epilepsy complicating encephalitis and cerebral palsy, and were treated for the most part at the parents' request. Enough improvement has occurred in this group to demonstrate that the treatment is worth a trial, even though the percentage of cures is decidedly lower than in cases of idiopathic epilepsy. Two patients are free from attacks, six are definitely improved, and only four are unimproved. The number of patients with symptomatic epilepsy who have been treated is too small to allow any decision with regard to treatment, but experience so far warrants its further trial (table 1).

Of the 132 cases of idiopathic epilepsy, seventeen were observed in the last six months and are therefore not included in the tabulations of results. Five of the latter showed temporary improvement while under observation, three were unimproved, and the attacks of the remaining nine were not frequent enough to permit conclusions regarding the results.

Twenty-four cases are unclassified (table 2). In this group of patients are included those who were free from attacks for a long period and then suffered from a return of the attacks, and whose state of ketosis was questionable, and those for whom phenobarbital (luminal) was required along with the diet to control the attacks. A large number of these patients did not keep in touch with the clinic, and a number of them improved while under observation but did not attain a state of ketosis at home. These cases are presented merely in order to tabulate all the cases treated. The information obtainable was not clear-cut enough to justify listing them as failures. They are not included in the tabulation of results.

Ninety-one patients have been on the diet long enough to give a definite idea of the effect of ketosis on the number and severity of convulsive seizures. The diet did not seem to have produced a therapeutic effect in forty-two (46 per cent) of the ninety-one patients (tables 3 and 4). Some of the children made temporary progress, but it was soon evident that the diet alone was not of any great value. In twelve instances there is a question as to the degree of ketosis attained after the patient returned home, but in the others ketosis was sufficient to produce a positive reaction of the urine with ferric chloride, according to Gerhardt's test. Of these forty-two patients only thirty were having attacks frequently enough so that the effect of ketosis could be noted while they were under observation at the clinic. Fourteen of the thirty were temporarily improved; the other twelve indicated early the ineffectiveness of the diet.

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[*] From the Section on Pediatrics, Mayo Clinic.

[*] Read before the American Pediatric Society, Washington, D. C., May 12, 1927.

[1] Wilder, R. M.: The Effect of Ketonemia on the Course of Epilepsy, Bull. Mayo Clinic 2: 307, 1926.

[2] Peterman, M. G.: The Ketogenic Diet in Epilepsy, J. A. M. A. 84: 1979-1982 (June 27) 1925.

Forty-nine patients (54 per cent) were definitely benefited by the diet (tables 5 and 6). In some cases the number of attacks was markedly reduced and the intervals between them were lengthened. The convulsion in the grand mal attacks was decreased in severity. Patient 30 was free from attacks for seven months and then had one attack. No further report has been received. In case 89, the attacks were controlled with phenobarbital and diet for a time. About three months after the phenobarbital was discontinued the attacks ceased, and there has not been any recurrence to date (two months).

Table 1.—*Cases of Symptomatic Epilepsy*

Case	Age	Sex*	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Comment
				Epilepsy on Basis of Encephalitis			
114	9	♂	Grand mal Petit mal	Every two or three days....... Occasional	7 years	8/19/25	Improved on diet for six months; grew worse; phenobarbital added but no improvement
115	5	♂	Grand mal Petit mal	Every two or three months.... Three to ten daily	2 years	7/ 2/25	Attacks less frequent and less severe; general condition better
116	5	♂	Grand mal	Every two weeks..............	6 months	9/ 1/24	Attacks at intervals of five months; now on general diet
117	5	♂	Grand mal	Every two months............	4 years	4/25/25	Free for periods of six months; mentally retarded
118	4	♂	Grand mal	Series every two weeks.........	4 months	12/26/25	On diet two months with no improvement; general diet and phenobarbital controls
119	3	♀	Grand mal	Two to eight daily............	18 months	7/ 9/25	On diet; no attacks since October, 1925
				Epilepsy on Basis of Cerebral Palsy			
120	3	♂	Grand mal Petit mal	Four every three months....... Ten to twenty hourly	1 year	6/22/24	No grand mal attacks but petit mal continued; still on diet; marked mental retardation
121	11	♀	Grand mal	One to two yearly.............	3 years	6/12/25	Complete freedom since addition of phenobarbital; diet nearly normal
122	7	♂	Grand mal Petit mal	One to two weekly............. Two to ten daily	3 months	10/22/21	Phenobarbital, acidophilus milk, and ketogenic diet tried in turn; fewer attacks on diet and phenobarbital
123	12	♂	Petit mal	One to two daily..............	? years	9/ 6/23	No attacks when in ketosis; patient uncooperative
124	11	♀	Petit mal	Ten to twenty daily...........	10 years	11/23/25	Attacks less frequent but in series; free for four months at one time
125	9	♀	Grand mal Petit mal	Two to three daily............ Two to three daily	1 year	7/16/25	No attacks since October, 1925; on normal diet one month later

* In this column, ♂ indicates male; ♀, female.

Table 2.—*Unclassified Cases*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Diet Continued	Comment
90	14	♂	Grand mal	Three in all.....................	1 month	1 year	Free for eight months, then attacks began
91	8	♀	Grand mal	Five in all......................	1.5 years	6 months	No attacks but received phenobarbital
92	9	♀	Grand mal Petit mal	Five in all...................... Five to six every two weeks	7 years	1 year	Diet not consistently followed
93	8	♀	Petit mal	Eight to ten daily............	3 years	9 months	Diet never correct
94	15	♂	Grand mal	One every month..............	7 years	3 to 4 months	Urine never positive
95	13	♂	Grand mal	One to two each month........	9 months	3 months	Diet incorrect, soon abandoned
96	12	♂	Petit mal	Ten to twelve daily...........	3 years	15 months	Good result in hospital, but would not cooperate at home
97	14	♂	Grand mal Petit mal	Occasional .... Series every two weeks	7 years	6 weeks	Diet never correct at home.
98	6	♂	Petit mal	Ten to twelve daily............	11 months	?	Never wrote after leaving clinic
99	5	♂	Grand mal	One daily	4 years	3 months	Diet not well tolerated; now on general diet and phenobarbital
100	4	♂	Grand mal Petit mal	Three to four each month..... Four to twenty-five daily	2 years	?	Diet not tolerated; free for year and a half on phenobarbital
101	9	♀	Grand mal	Occasional	3 years	?	Phenobarbital had controlled attacks; on diet only short time, then returned to phenobarbital
102	13	♂	Grand mal	Two to three daily............	17 months	?	Diet possibly for few weeks
103	5	♀	Petit mal	One to four daily.............	2 years	3 months	Diet not well tolerated and abandoned in few months; ketosis ?
104	9	♂	Grand mal	Two each month...............	6 months	?	Not heard from since leaving clinic
105	8	♀	Petit mal	Five to ten daily..............	4 years	6 months	Ketosis not present at home
106	13	♂	Grand mal	One to two daily..............	2.5 years	3 months	Phenobarbital added; possible organic lesion
107	13	♀	Grand mal Petit mal	One every two or three days... One every two or three days	2 years	?	No reply to our letters
108	11	♂	Petit mal	Two to three every two or three days	5 years	6 to 7 months	Appendicitis interrupted diet; did not return to it; no further reports
109	11	♀	Grand mal Petit mal	One every year................. Eight to ten daily	4 years	4 months	No improvement first month but diet not well managed; no further reports
110	6	♀	Grand mal	Three to four daily...........	4 years	?	No improvement but tests negative
111	8	♂	Grand mal	Three to four daily...........	5 years	2 months	No improvement; no ketosis
112	12	♀	Grand mal	Four to five daily.............	Life	1 month	No improvement but no ketosis
113	9	♀	Petit mal	Ten to twelve daily...........	2 years	To date	Never in ketosis

Table 3.—*Failures*

Case	Age	Sex	Frequency of Attacks	Duration	Diet Continued	Ketosis	Comment
				Petit mal			
48	11	♀	One hundred daily............	Life	16 months	Yes	Bromides beneficial
49	14	♀	One each week................	3 years	2 years	Periodic	Free once for three weeks
50	3	♀	Twenty to twenty-five daily...	9 months	To date	Yes	Phenobarbital added, fewer attacks
51	9	♀	Fifty to sixty daily..........	5 months	1 year	Yes	Off diet now, no more attacks
52	9	♀	Series periodically	7 years	4 months	?	Attacks became more severe
53	8	♀	Ten to twenty daily..........	6 months	1 year	Yes	No change
54	9	♂	One every week...............	16 months	7 months	Yes	No change; no further reports
55	3	♂	Forty to fifty daily..........	1 year	11 months	Yes	Attacks the same, but general condition improved
56	15	♀	One to twenty daily..........	1 year	10 months	?	No reduction in number; off diet
57	4	♀	Five to six daily.............	11 months	5 months	Yes	No reduction even with phenobarbital
58	14	♂	One to fifteen daily..........	7 years	18 months	Yes	On general diet, attacks same as before
				Grand mal			
59	8	♂	Three to five daily............	2 years	Unknown	....	Child institutionalized
60	13	♂	Series every six months.......	4 to 5 years	16 months	Yes	Practically free, on phenobarbital now
61	8	♂	One every two weeks.........	2 years	3.5 months	Yes	No improvement; off diet now
144	13	♂	Two every month..............	2 months	6 months	Yes	Attacks not reduced; controlled on phenobarbital for past year

Ten patients are without attacks when in a state of ketosis, but there are constant breaks in diet. Various factors are responsible for the breaks. A recent case of petit mal is illustrative. A girl, aged 13 years, was having about fifteen attacks daily. After the diet was started the attacks gradually decreased in number, and after two weeks there were two days of entire freedom from them. Then, without apparent change in the diet, she had five attacks. The urine, which was frankly positive to the test the days she was free from attacks, was negative the day she had five attacks. At first the child denied having eaten anything not included in her regular diet, but later confessed to having eaten some candy. Similar occurrences have been noted in other cases and at the clinic. If attacks occur after such prompt relief, they are almost certainly caused by a break in diet. Talbot[3] has described similar cases.

Table 4—*Cases of Grand Mal and Petit Mal: Failures*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Diet Continued	Ketosis	Comment
62	10	♀	Grand mal Petit mal	One every two months..... Four to five daily	7 months	3 months	?	Phenobarbital added; no improvement; mental change
63	7	♀	Grand mal Petit mal	Occasional .... Four to five daily	3 months	6 months	Yes	Phenobarbital added; no benefit
64	14	♀	Grand mal Petit mal	Two in all.... .... One to two every week	1 year	To date	Yes	Apparent improvement at first; phenobarbital necessary now
65	9	♂	Grand mal Petit mal	Two to three every month. Twelve to fifteen daily	5 years	7 to 8 mos.	?	No cooperation from patient, phenobarbital necessary
66	10	♀	Grand mal Petit mal	One every day .... Three to five daily	4 years	9 months	?	At first attacks were associated with breaks in ketosis
67	10	♂	Grand mal Petit mal	One to three every night... Twelve to fifteen daily	3 years	5 months	Yes	Diet not well tolerated, phenobarbital necessary
68	11	♀	Grand mal Petit mal	One every year............ Four to five daily	6 years	1 year	?	Failure due perhaps to lack of cooperation
69	10	♂	Grand mal Petit mal	Four to five every month.. Two to ten daily	3 years	14 months	?	Ketosis not constant but attacks at all times
70	11	♂	Grand mal Petit mal	Occasional .... Periodic	5 years	4 months	Yes	Mental changes suggestive of dementia praecox
71	12	♀	Grand mal Petit mal	One to two every month.. Three to ten daily	1 year	9 months	Yes	Attacks persisted even after addition of phenobarbital
72	13	♂	Grand mal Petit mal	One every month.......... One to two every week	2 years	1 year	Yes	Apparently little change; now on general diet, and free
73	10	♂	Grand mal Petit mal	One to two every week..... Five to ten daily	4 years	18 months	Yes	Phenobarbital added; no improvement
74	10	♀	Grand mal Petit mal	Occasional .... Three to five daily	9 months	20 months	Yes	Thyroid extract and phenobarbital also given; no benefit
75	13	♀	Grand mal Petit mal	One to two daily........... Occasional	2 years	6 months	?	Fewer spells with phenobarbital
76	13	♀	Grand mal Petit mal	One to two every month... Five to six daily	2 years	6 months	Yes	No change
77	5	♂	Grand mal Petit mal	Three to four every year... Ten to fifteen daily	1 year	5 months	Yes	Free for six weeks; phenobarbital necessary
78	9	♂	Grand mal Petit mal	One every one to three mos. Series	7 years	5 months	?	No change
79	8	♀	Grand mal Petit mal	Two every week........... Occasional	14 months	3 months	Yes	Fewer attacks, now on general diet and phenobarbital
80	10	♀	Grand mal Petit mal	Six in all.................... One every day	6 years	8 months	Yes	Attacks no fewer; possible migraine basis
81	8	♂	Grand mal Petit mal	One every night .... One to two every day	6 years	1 year	?	Phenobarbital necessary; sometimes breaks diet
82	13	♀	Grand mal Petit mal	One every night.......... . Indefinite	8 years	1 year	?	Improved; on phenobarbital and general diet last six months
83	13	♀	Grand mal Petit mal	One to five every month... Eight to ten daily	7 years	21 months	Yes	Phenobarbital added after six months; mentally retarded
84	2	♂	Grand mal Petit mal	One every three weeks...... One to two every week	1.5 years	4 months	Yes	Diet not well tolerated; not controlled now on phenobarbital
85	4	♀	Grand mal	Series every two weeks.....	3.5 months	3.5 months	Yes	Some free days at first; no change with bromides and phenobarbital
86	12	♂	Grand mal Petit mal	One to two every month .. Two every week	3 years	To date	Yes	Phenobarbital necessary
87	5	♂	Grand mal Petit mal	One daily .... One to two daily	1 year	To date	Yes	Improved at first
88	9	♂	Grand mal Petit mal	One to two every week..... One every week	10 months	10 months	?	Grew worse; off diet now

Table 5.—*Patients Improved; in Constant Ketosis*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Frequency of Attacks	Comment
29	9	♂	Grand mal Petit mal	One every week............. One every three weeks..... .	5.5 years	9/15/25	One every two or three months None	
30	15	♂	Petit mal	One to two every month....	6 months	3/17/25	....	Free seven months, one attack; no report since
31	10	♀	Petit mal	Fifty daily	1.5 years	9/ 8/25	Only a few	
32	14	♂	Petit mal	Four to five daily..........	7 years	1/ 5/25	One daily......................	Some days free; better first year
33	7	♂	Grand mal	One every two weeks.......	6 years	10/21/25	One every month.............	Attacks lighter; one free period of three months
34	10	♂	Grand mal	One every two months.....	1.5 years	6/12/26	One every three months.......	Attacks lighter
35	12	♂	Grand mal	One to two daily..........	9 years	8/20/25	One every week...............	Attacks lighter; intervals longer
36	10	♀	Grand mal	One every two or three wks.	6 years	10/ 2/26	Few in series..................	Free for eight weeks
37	7	♂	Petit mal	One daily	1 year	6/ 7/26	One every six months.........	Off diet now but will return to it as soon as mother's health improves
89	8	♀	Grand mal Petit mal	One every month........... Three or four daily	2 months	4/15/26	....	Controlled with phenobarbital at first; none for five months; no attacks for two months

In another group of cases (table 7) the patients were free from attacks for from six to twelve months. Three patients may not be following the diet now, but there is no definite information that they were free from attacks for more than six, six, and seven months, respectively. Three of the others have not had attacks for eight months, one for ten months, and one for eleven months. The latter two are no longer following

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3. Talbot, F. B.; Metcalf, K. M., and Moriarty, Margaret E.: Epilepsy: Chemical Investigations of Rational Treatment by Production of Ketosis, Am. J. Dis. Child. 33: 218-225 (Feb.) 1927.

the ketogenic diet. One is on a diet containing a high percentage of fat, the other is on practically a normal diet.

Three patients were free from attacks for more than a year (table 8). Then, when the diet was modified, attacks again appeared but resumption of the former diet controlled the attacks once more In case 28 it is practically impossible to control attacks unless the child is prevented from obtaining carbohydrates, which is rather difficult in the case of a child of 8 years with a brother and a sister on a normal diet.

TABLE 6.—*Patients Improved; Attacks Apparently Due to Breaks in Ketosis*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Frequency of Attacks	Comment
38	13	♂	Grand mal	One every week	6 years	2/ 9/26	One every six weeks	Attacks lighter; off diet now because of lack of cooperation
			Petit mal	Three every week				
39	12	♀	Grand mal	One every month	Life	8/21/25	One every two months	Doing better recently
			Petit mal	One to two every week			One every month	
40	4	♀	Grand mal	One every night	3 years	9/17/25	One to two monthly	Mother careless; worse than not on diet
			Petit mal	Twenty daily			?	
41	5	♀	Petit mal	Five to seven daily.	10 months	11/ 2/25	One every month	Free for period of two to three months; all attacks due to breaks in diet
42	8	♂	Petit mal	Fifty to sixty daily	3 years	9/10/23	One to two every week	Mother careless; patient unruly
43	10	♂	Petit mal	Fifteen to twenty daily	1 year	7/17/25	Three to four daily	Free for two weeks in ketosis; mother not sure of management
44	6	♂	Grand mal	Three every month	2 years	10/22/23	....	Free four months; attack due to break in diet; off diet now; no report for one year
45	11	♂	Grand mal	One to two daily	10 months	12/16/24	One every two weeks.	Previously controlled to some extent with phenobarbital; in ketosis, free for two to three months
46	2.5	♂	Grand mal	Three every month	2 years	6/ 6/25	One to two every month	Free for six weeks once, attacks lighter
47	7	♂	Grand mal	One to fifteen every three to five months	5 years	1/27/25	Three every year	Two attacks due to break in diet; advised by home physician to discontinue diet because of lack of cooperation

TABLE 7.—*Patients Free from Attacks for Less Than a Year*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Last Attack	Comment
19	9	♂	Grand mal	Two every month	1 year	8/10/25	9/29/25	Entirely free for six months; no report since
20	4	♀	Petit mal	One daily	1 year	10/ 9/25	7/13/26	Free for ten months; diet less strict now
21	10	♂	Grand mal	Three to four every month.	3.5 years	4/ 9/26	6/ 8/26	Free for eleven months; normal diet now
22	14	♀	Grand mal	Two every three months	3 months	9/ 6/26	None	Free for eight months
			Petit mal	Occasionally				
23	3	♂	Petit mal	Thirty daily	5 months	9/ 9/26	None	Free for eight months
24	11	♂	Petit mal	One to twenty five daily	5 to 6 years	8/16/26	9/ ?/26	Free for eight months
25	14	♀	Grand mal	Four in year	1 year	9/28/25	None	Free for seven months, no report since
145	5	♂	Grand mal	One every six weeks	5 months	11/19/24	None	Free for six months; no report since

TABLE 8.—*Patients Having Attacks on Resumption of General Diet*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Comment
26	4	♀	Grand mal	One every month	2 years	8/27/24	Free until Dec 17, 1925; diet less restricted; continued free, diet again relaxed; possible attacks in October, 1926, strict diet again and free
27	14	♂	Grand mal	One every month	1 year	7/18/25	Free from attacks one year; started general diet and attack resulted now on ketogenic diet and free
			Petit mal	Five to six daily			
28	8	♀	Petit mal	One to ten daily	4 years	7/17/24	Free for more than a year; diet relaxed and attack resulted; patient unruly; attacks followed breaking of diet

TABLE 9.—*Patients Free from Attacks for One Year or More*

Case	Age	Sex	Diagnosis	Frequency of Attacks	Duration	Placed on Diet	Last Attack	General Diet Since	Period of Freedom	Comment
1	11	♀	Petit mal	Eleven daily	2.5 years	8/22/24	4/ ?/26	8/ ?/26	1 year	Long periods of freedom
2	3	♀	Grand mal	Six to eight daily	4 months	4/13/26	5/16/26	9/ ?/26	1 year	
3	14	♀	Grand mal	One every month	7 months	3/ 5/26	4/28/26		1 year	
4	9	♀	Grand mal	One every month	4 months	3/31/26	None		1 yr, 1 mo	
5	11	♂	Grand mal	One every month	6 months	1/22/26	2/16/26		1 yr, 2 mo	
6	8	♂	Petit mal	One every month	1 year	8/29/25	11/11/25		1 yr, 5 mo	
			Grand mal	One every month						
7	11	♂	Grand mal	One every two months	2 years	10/ 8/25	None	5/ 1/26	1 yr, 7 mo	
8	4	♂	Grand mal	Six to eight daily	1 year	9/24/25	None	?	1 yr, 7 mo	On diet only few months
9	6	♀	Petit mal	Three to four daily	1 year	7/ 9/25	None		1 yr, 10 mo	
10	10	♂	Petit mal	Three only	1 year	5/13/25	None	12/18/26	2 years	Migraine basis
11	8	♂	Petit mal	Eight to ten daily	1 year	2/ 3/25	2/15/25	11/ ?/25	2 yr, 3 mo	
12	5	♂	Petit mal	Forty to one hundred daily	2.5 years	2/12/24	5/ 9/24	9/ 1/26	2 yr, 3 mo	Two attacks due to incorrect diet in January, 1925
13	6	♀	Petit mal	Three to four each hour	2 months	11/ 3/24	11/12/24	5/ ?/26	2 yr, 6 mo	
14	9	♂	Grand mal	Two every night	5 months	3/ 2/24	5/21/24		2 yr, 11 mo.	
			Petit mal	Three to four daily						
15	5	♂	Grand mal	One every six weeks	14 months	3/17/24	5/ 1/24	4/ ?/26	3 years	
			Petit mal	Four to five daily						
16	8	♂	Petit mal	Twelve daily	3 years	9/14/23	10/30/23	7/ 0/24	3 yr, 6 mo	
17	9	♀	Grand mal	Two to three every six mos	3 years	7/ 8/ 3	None	6/ /25	3 yr, 10 mo	
18	9	♂	Grand mal	One every month	1.5 years	9/ 5/21	7/10/23	7/21/24	3 yr, 10 mo	Attacks due to relaxing diet between 1921 and 1923

Eighteen patients have been free from attacks for from one to four years (table 9). Twelve of these are now on a normal diet and are free from attacks. It is, of course, possible that some of the latter may relapse as did the three patients just mentioned, but there is every likelihood that resumption of the diet would again control the attacks. These patients and those referred to in tables 7 and 8 constitute the group successfully treated long enough so that if a break comes resumption of the diet may check the attacks.

SUMMARY

Twenty-nine of ninety-one patients suffering from idiopathic epilepsy have been freed from attacks by means of the ketogenic diet. Twenty others are definitely improved, so that 54 per cent have been definitely benefited by the dietary treatment. Forty-six per cent of the patients were not benefited by treatment, although many of them were improved temporarily. The results are summarized in table 10.

Table 10.—*Summary of Cases*

Diet definitely failed	12	
Improved but not free from attacks	30	
Free from attacks while in ketosis	10	
Free for from six months to one year	8	
Free for more than one year	18	
Attacks on resuming normal diet	3	
		91
Unclassified cases		24
Cases too recent for classification		17
Cases of idiopathic epilepsy		132
Cases of symptomatic epilepsy		
Free for more than one year	2	
Improved	6	
Failure of diet	4	
		12
Cases treated with ketogenic diet		144

Experience has shown that the ketogenic diet will free 31 per cent of the patients from attacks and will definitely improve an additional 23 per cent.

STUDIES OF EXOPHTHALMIC GOITER AND THE INVOLUNTARY NERVOUS SYSTEM

XIV. RELATIONSHIP TO SEX LIFE OF THE FEMALE *

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All observers have noticed a mutual interrelationship between the critical epochs in the sex life of the female and disturbances in the thyroid gland and the involuntary nervous system. It is our purpose to record our clinical observations in this regard, following a study of more than six years in the thyroid department of the Mount Sinai Hospital.

SUMMARY OF LITERATURE ON MORPHOLOGIC AND FUNCTIONAL CHANGES IN THYROID GLAND

Alterations in the morphology of the thyroid gland have been clearly delineated by Marine.[1] He has defined the normal gland and has shown that with iodide-lack there occurs a hyperplasia associated with vascular congestion, which may lead to a visible and palpable swelling of the gland. On the administration of iodine,[2] the gland involutes and becomes colloidal. This is accompanied by a decrease in size. A colloidal gland is therefore a gland which has once been hyperplastic, and which, having received sufficient iodine, is in a resting stage. Secondary hyperplasia may occur in this colloid goiter. Cysts and adenomas, whether diffuse or localized, may also cause a visible or palpable swelling. A goiter may therefore be hyperplastic or colloidal, cystic or adenomatous, or any combinations of these.

Anatomic changes in the thyroid are not indicative of functional alterations. The normal thyroid architecture is compatible in unusual instances with exophthalmic goiter;[3] hyperplasia of the gland occurs in the simple goiter of puberty,[1] in endemic goiter,[4] in exophthalmic goiter[3] and in myxedema;[5] and it accompanies adenomas; colloid goiters are found in normal individuals, in endemic goiter, and in exophthalmic goiter;[3] adenomas may be present in normal persons,[6] in myxedema,[3] in true exophthalmic goiter,[3] and in the nonexophthalmic types of so-called toxic goiter.[7] Attempts to correlate morphology and function, while interesting, have never been warranted by the facts.

With regard to thyroid secretion, a potent substance, thyroxin,[8] has been isolated, and amply described elsewhere.[9] The secretory rate is unstudied and not understood. An almost complete lack of secretion results in the picture of myxedema. Hypersecretion is an inference as yet unsupported by physiologic experiment.[10] Perversion of secretion (dysthyroidism), is similarly unsupported by either physiologic work or biologic analogy.[11] Nothing is more striking than the disparity between the meagerness of the data and the plethora of hypotheses concerning the secretion of the thyroid gland.

Anatomic changes, particularly hyperplasia, may frequently accompany alterations in the sex life of the female. Hyperplasia may occur with estrus, pregnancy and puberty. Many unwarranted inferences have been drawn as to this association. To us, the hyperplasia means simply that associated with evidences of activity of the female sex hormone there is an iodide lack in the thyroid, which leads to hyperplasia. Inferences concerning secretory rate are unwarranted, and no widespread theory concerning glandular interrelationship has the weight of experimental or clinical fact.

PHYSIOLOGY AND PHARMACOLOGY OF THE INVOLUNTARY NERVOUS SYSTEM

The involuntary nervous system is characterized by its operation beyond or beneath consciousness,[12] and by its pharmacologic reactions.[13] Its morphology has been amply described.[14] Pharmacologically, it is subdivided into a thoracicolumbar system, which is stimulated by epinephrine (sympathomimetic); and a craniosacral system, which is *stimulated by pilocarpine* and paralyzed by atropine. The ganglions of both subdivisions are first stimulated, then paralyzed by nicotine. The subdivisions are as a rule mutually antagonistic, and frequently each system has within itself fibers mutually antagonistic to identical structures. The involuntary nervous system is in constant tonus. The factors that regulate this tonus are at present unknown. Doubtless there is some central control not yet completely worked out. The chemical theory of the regulation of tonus by the anions and cations to date has failed of complete experimental proof.[15] Its regulation by the hormones is a nebulous and popular hypothesis, opposed by experimental work. The factors that may affect the involuntary nervous system in health and disease are similarly unknown. The theory of emergency stimulation by epinephrine is much disputed and not acceptable, at least to us, on the basis of our experimental work.[16] Even the everyday observation of the association of stimulation of the involuntary nervous system by emotion is not satisfactorily worked out. Specifically with regard to the involuntary nervous system and female sex hormones, there seems to be some unquestioned interrelationship as yet unknown. Whether this is due to a common response to some underlying biologic change, whether it is purely morphologic and not functional, which system is affected first, which is causative and which effective, is at present wholly unknown, and most speculation serves merely to emphasize the ignorance of the theorist.

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* From the medical service of the Mount Sinai Hospital

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RELATIONSHIPS OF FEMALE SEX HORMONE

A. *The Clinical Relationship Between the Female Sex Hormone and the Thyroid Gland.*—Thyroid hyperplasia often accompanies the most important epochs in female sex life. The gland frequently undergoes hyperplasia during estrus, but as it involutes immediately, it is a matter of no concern to the clinician, except so far as reassuring an apprehensive patient is concerned. A more constant and lasting hyperplasia occurs at puberty and during pregnancy. Perhaps it would be more accurate to say that, when there is a tendency for the development of goiter, this tendency becomes more marked at the various critical epochs in the female sex life.

In our studies, about one third of the "goiter" patients developed a hyperplasia at the time of puberty. That this hyperplasia is more strictly related to the female rather than the male sex hormone is indicated by the enormous preponderance of girls and women who develop goiter, the relationship in our series at a seaport being about nine females to one male. A physiologic hyperplasia also occurs during pregnancy, and this, of course, is more apparent in a goiter belt than at a seaport; during the menopause again the same relationship is noted. When symptoms are not associated with the goiter, irrespective of whether the tumor is hyperplastic or adenomatous, iodide may be freely administered as a routine measure. Recently there has been a great furor over the dangers of iodine administration to individuals with adenomatous glands. This danger we regard as tremendously exaggerated. It occurs at most in a fractional percentage of cases, and it is a temporary phenomenon. It should not deter the physician from the routine administration of an iodide in the nonsymptomatic goiters that occur synchronous with the epochs in the female sex life. The simple salt of sodium or potassium iodide in small doses of from 2 to 5 grains (0.13 to 0.3 Gm.) once or twice a day is as good as any other measure. The tendency to use more costly organic salts is a luxury. Physical therapy and roentgen-ray and radium therapy, so commonly practiced, are a menace.

When we speak of nonsymptomatic goiter, we are discussing a condition that has almost ceased to exist for, thanks mostly to the ardent medical writers and lecturers for the lay public, and to the overzealous public health worker and life extension bulletins, practically every woman with a goiter has with it an anxiety neurosis ("goiterophobia"). Almost all our patients came to us with symptoms directly referrable to this "goiterophobia." They have a fear that is either due to a mechanical disturbance, such as choking or inability to swallow, or due to some toxic disturbance simulating exophthalmic goiter, the symptoms varying in degree and intensity almost directly with the amount that the patient has heard or read. The iodide therapy must be accompanied by reassurance, particularly that operative intervention is not and will not be necessary. The extravagances of the surgeons have also helped in no small way to further this anxiety state, one of the most zealous claiming that in his state more than three fourths of the young women have a goiter, and of this three fourths, one half have toxic symptoms. Such a statement would imply that more than 37 per cent of the young women in a goiter belt have toxic symptoms of thyroid disturbance. McCarrison and Marine and others who have worked in goiter belts have carefully noted that exophthalmic goiter is no more common in these districts, and seems not to be influenced by the presence of endemic goiter.

True exophthalmic goiter is a relatively uncommon disease. When present, the diagnosis offers little difficulty. The great error is in making the diagnosis when the disease does not exist, and in our experience this error is made with amazing frequency. Of the patients sent to our clinic with the diagnosis of exophthalmic goiter, only a very small proportion suffered from the disease. In goiter belts we are convinced that the majority of patients operated on for exophthalmic goiter and toxic adenomas do not suffer from either of those diseases as we know them. The danger of so-called iodine hyperthyroidism has created an anxiety neurosis in physicians, a state that has seriously interfered with the prophylactic and curative use of iodides. Between the fears of the patient and the fears of the physician, the whole subject has become unnecessarily complicated and obscured.

B. *Relationship Between the Female Sex Hormone and the Involuntary Nervous System.*—Disturbances of the involuntary nervous system are particularly prevalent during puberty and at the menopause. Usually the disturbance is not confined solely to the craniosacral system (vagotonic), or the thoracicolumbar system (sympathicotonic), but it is a mixture of the two (autonomic imbalance),[17] differing in each individual. The causes for the disturbance of the involuntary nervous system (autonomic imbalance), to us, at least, are unknown. These disturbances may or may not be accompanied by a morphologic change in the thyroid. We have not been able to make out a constant relationship. At puberty or the menopause, an autonomic imbalance may be present without goiter, or a goiter without autonomic imbalance, and what it is that determines which, if either, is to appear, is a matter purely

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15. Lieb, C. C., and Hyman, H. T.: Vascular Response of Pithed Cat to Adrenalin, Am. J. Physiol. **63**: 60 (Dec.) 1922; **63**: 68 (Dec.) 1922.

16. Lieb, C. C., and Hyman, H. T.: Attempts to Alter the Vascular Response to Adrenalin, Am. J. Physiol. **63**: 83 (Dec.) 1922; **63**: 88 (Dec.) 1922.

17. Kessel, Leo; and Hyman, H. T.: Autonomic Imbalance, Am. J. M. Sc. **165**: 513 (April) 1923.

for speculation. Certainly, no hormone therapy has been of any value in our hands; we use iodides for the goiter, and for the autonomic imbalance we employ a policy of "skilful neglect." Particularly at puberty, when the imbalance and the goiter coexist, a differential diagnosis must be made from true exophthalmic goiter. True exophthalmic goiter is extremely rare at this age, and is associated with a real elevation of the basal metabolic rate. The "goiterophobia" adds to the diagnostic dilemma, for the resulting emotion of fear causes an autonomic imbalance which may produce tachycardia, tremor, sweating or diarrhea, and the syndrome may then closely resemble exophthalmic goiter. Here the basal metabolic rate will determine the diagnosis, for it is elevated only in true exophthalmic goiter. A word of caution concerning the readings of the basal metabolic rate would not be amiss. Usually the first readings are erroneously high, owing to fear and lack of cooperation on the part of the patient. The word "basal" means mental and physical rest, and one should be certain in getting a reading that the metabolic rate is truly basal. At puberty, when the rate is normal, the patients should be reassured; their school work should not be interfered with; they may be permitted indulgence in all athletics, but not in competitive sports, and too earnest students should be barred from extracurricular work. Except for an avoidance of excess either in study or in sport, and the administration of iodides, we believe that the less these children are interfered with, the better it is for their general welfare. Foci of infection, particularly in the tonsils, should be eradicated.

In the simple goiters unassociated with elevation of the basal metabolic rate, we have not found constant change in the sex physiology. There is no reason why these patients should not become pregnant and bear healthy children. All pregnant women should receive doses of iodides throughout pregnancy as a prophylactic. When the thyroid is at all enlarged, the iodides should be given in larger doses, both as a curative agent for the mother and as a prophylactic for the fetus, for Marine[1] has clearly shown that the litter of a goitrous dog has thyroid hyperplasia, and that this hyperplasia may be prevented in subsequent pregnancies by the administration of iodide throughout the period of gestation.

The symptoms at the menopause we are wholly unable to cope with in any routine manner. Substitution therapy in our hands has been, with rare exceptions, a useless procedure.

Patients with autonomic imbalance stand the test of pregnancy well, and there is no reason to fear that the period of gestation will precipitate them into a crisis of exophthalmic goiter. As a matter of fact, pregnancy sometimes seems to stabilize the lability of the involuntary nervous system. The nervousness of which these persons complain is more often psychogenic than chemical in its origin.

C. *Relationship Between Exophthalmic Goiter and the Female Sex Hormone.*—True exophthalmic goiter is characterized usually by exophthalmos, goiter, tremor, tachycardia and an elevation of the basal metabolic rate. Of these symptoms the tachycardia and the elevation of the basal metabolic rate alone are constant, and a diagnosis of exophthalmic goiter should not be made in their absence. That some unknown relationship exists between exophthalmic goiter and the female sex life is a common observation. The disease is more prevalent in females by four to one. It is often precipitated at the sex epochs, and it profoundly affects female sex physiology. About 10 per cent of the patients complained of amenorrhea. This may be metabolic or toxic, as in the amenorrhea of an infection such as tuberculosis. No other constant menstrual irregularity has been noted by us. Impregnation occurs normally in the patients that we have studied. For example, in a series of fifty consecutive patients, among forty-one women, of whom twenty were married, nine women had twelve children. The number of pregnancies in this group is about the average expectancy. In all of these women the puerperium and labor were normal. The majority of the patients were delivered by Dr. C. F. Jellinghaus at the Lying-In Hospital.

The effect of the puerperium and labor on the exophthalmic goiter was usually an amelioration of the symptoms, and the test of pregnancy was well met at all times by the circulatory system. The children were normal, with the exception of one stillbirth. Lactation was similarly normal. None of the patients suffered from the toxemia of pregnancy. We mention this simply because most textbooks mention the use of thyroid extract in the treatment of the toxemia of pregnancy. The rationale of this to us is obscure. It seems based on the fallacy that the hyperplasia which usually accompanies pregnancy is indicative of a hyperthyroidism, and that this hyperthyroidism is compensatory, and hence furnishes a clue for therapy. Comment on this reasoning would seem superfluous.

Though our patients have so well met the test of pregnancy, we do not unhesitatingly advise pregnancy in patients with exophthalmic goiter. Unless the circumstances are unusual and the maternal yearning is strong, we advise our patients to practice contraception. Once pregnant, however, we do not think that a therapeutic abortion is indicated because of the exophthalmic goiter per se. Certainly, therapeutic abortion is not indicated in patients with nonsymptomatic goiters, or goiters with autonomic imbalance. On the other hand, rapid loss of weight, increasing tachycardia, nervousness and elevation of the basal metabolic rate may force the attendant to induce abortion.

Repeated mention is made in the textbooks of the mechanical difficulties due to goiter during labor, and all authors mention a single case of a woman who suffocated, presumably as a result of pressure from a goiter. We believe that mechanical disturbances due to goiter are extremely rare, and that this single instance may be better ignored than perpetuated by transcribing it from one textbook to another.

We have never seen an attack of exophthalmic goiter primarily initiated by the extra burden of gestation in patients with simple goiters of no matter what morphology, or in those with autonomic imbalance. It is a serious error to advise a therapeutic abortion in these women, with the idea of preventing an attack of exophthalmic goiter.

940 Park Avenue.

Simpler Bacteriology in Medicine.—Inasmuch as the pathogenic micro-organisms produce definite lesions in the body, and micro-organisms produce definite lesions in the body, and are only of importance because they do this, would it not be possible to classify them according to the lesions they cause, disregarding the minor variations they exhibit in morphology and biological properties? It would, of course, be a rough and ready classification, and it would break down from time to time, as all classifications do, but it would at least have the virtue of focusing our attention on the really important thing, the disease.—Kettle, E. H.: Some Aspects of Inflammation and Infection, *Lancet* **1**:1169 (June 4) 1927.

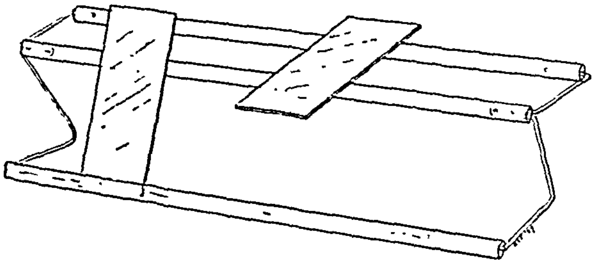
Clinical Notes, Suggestions and New Instruments

A USEFUL, SIMPLY CONSTRUCTED STAINING RACK[*]

Roy F. Feemster, M.D., D.P.H., Louisville, Ky.

It is often a problem to find a place to lay a slide when staining or drying it in a laboratory which is not provided with special staining vessels with slide rests or holders. Becoming tired of having my slides fall from improvised rests while staining them, or having to stand them against reagent bottles to dry, I was finally reduced to constructing a staining rack for my own use. It has proved so satisfactory that I deem the idea worth sharing with others.

All the materials necessary are three pieces of glass tubing of the same length, and a piece of fairly stiff wire. The wire is run through the front lower piece of tubing, as shown in the accompanying illustration, and about 8 or 9 inches is allowed to project out at each end. These ends are bent at right angles to the tubing in the same direction. About 2¼ inches back each wire is bent up and forward at an angle of about 45 degrees. A double bend inward is now placed in the portions projecting upward, so that the second tube may be held in place. A perpendicular line dropped from the second tube should strike the table about a half inch back of the lower tube. The remaining part of the wire is bent back parallel with the table and the ends turned inward about 1½ inches behind the second piece of tubing to hold the third piece of tubing.



Rack for staining and drying slides.

The two upper glass tubes now act as a support for slides in a horizontal position during staining, and the two front ones allow the slides to be placed on end for draining and drying.

The rack may be made of any length, depending on the length of the tubes used. One about 12 inches long will accommodate eight or ten slides at a time and will be long enough for most laboratories. A piece of blotting paper placed under the rack will protect the table and at the same time hasten the draining of the water from the slides.

738 East Chestnut Street.

SPLENOMEGALIA LYMPHATICA HYPERPLASTICA, OR GENERALIZED GIANT LYMPH FOLLICLE HYPERPLASIA OF LYMPH NODES AND SPLEEN

R. D. Baker, M.D., Summit, N. J.

Three cases of splenomegalia lymphatica hyperplastica have been reported by Brill, Baehr and Rosenthal.[1] My patient was a man, aged 50, who came to my office for the first time, Oct. 22, 1926, with a history of swollen nodes behind the ears and on the back of the neck since early summer. He complained also of occasional cold and hot feelings; of discomfort in the upper abdomen, irregularly; of being very tired; of slight headache and of nervousness and at times nausea. He did not sleep well and had no appetite.

The family history was negative. The personal history was negative, except for an appendectomy in 1915.

On physical examination the principal positive observations were: very bad breath; blood pressure 100 systolic and 60 diastolic; pulse 96; temperature 99.2; one dead tooth; slightly increased tone in the upper right rectus; tenderness in the region of the gallbladder; liver palpable, soft and regular; tip of the spleen palpable and tender; some enlarged glands back of each ear above the sternocleidomastoid insertions, many small cervical and a few occipital glands rather tender, and a few enlarged inguinal glands. The patient was only 5½ pounds (2.5 Kg.) under normal weight. Two successive blood counts were normal without observations of interest. The Wassermann reaction was negative.

The stomach contents showed an absence of hydrochloric acid with much mucus.

Because of the discomfort in the upper right part of the abdomen, the very bad breath, the lack of appetite, and the patient's age, a series of barium tests of the gastro-intestinal tract was done. The result was negative, except for an adhesion in the pelvic area, from which the appendix had been removed. There was no stasis.

Biliary drainage produced a massive culture of *Bacillus pyocyaneus.*

This was a lymphomatosis without changes in the blood, and with some suspicious abdominal symptoms.

Biopsy was done on one of the glands back of the ear by Dr. H. S. Martland of Newark, N. J., who reported giant lymph follicle hyperplasia. Since the case was of considerable interest, a specimen was also sent to Dr. George Baehr of New York, co-author in the original article, who agreed with Dr. Martland in the pathologic diagnosis.

Biliary drainage and duodenal lavage with hypertonic salt solution was followed for a time.

The patient was instructed to take dilute hydrochloric acid with his meals, and was given a half grain (0.03 Gm.) of neutral acriflavine three times daily after meals. Roentgen-ray treatments over the glands and spleen were begun.

One dead tooth was removed.

At present March 31, 1927, the glands, which had progressed somewhat during the working out of the case, have very much receded, the spleen is not palpable, and the patient is much improved in health. His only complaint is of easy fatigue. Cultures of *pyocyaneus* are no longer obtained from the bile. This, I believe, is the seventh case on record, the original authors having had two cases since their first article.

52 De Forest Avenue.

New and Nonofficial Remedies

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application. W. A. Puckner, Secretary.

B. ACIDOPHILUS MILK-FAIRCHILD.—A whole milk cultured with *B. acidophilus.* It contains not less than 50 millions of viable organisms *(B. acidophilus)* per cubic centimeter at the time of sale.

Actions and Uses.—See Lactic Acid-Producing Organisms and Preparations, New and Nonofficial Remedies, 1927, p. 216.

Dosage.—Ordinarily the contents of one bottle (200 cc.) may be taken daily—at one time, or divided as preferred. The quantity may be greatly increased by direction of the physician, especially at the beginning of the treatment when the contents of two or three bottles may be consumed daily. B. acidophilus milk-Fairchild is marketed in bottles containing 200 cc. (7 fluidounces); it must be kept in a cool place and should be used prior to the date stamped on the label.

Manufactured by Fairchild Bros. and Foster, New York. No U. S. patent or trademark.

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[*] From the Department of Bacteriology and Pathology, University of Louisville Medical Department.

[1] Brill, N. E.; Baehr, George; and Rosenthal, Nathan: Generalized Giant Lymph Follicle Hyperplasia of Lymph Nodes and Spleen, J. A. M. A. 84:668 (Feb. 28) 1925.

THE JOURNAL OF THE
AMERICAN MEDICAL ASSOCIATION

535 North Dearborn Street - - - Chicago, Ill.

Cable Address - - - - "Medic, Chicago"

Subscription price - - - - - - Five dollars per annum in advance

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SATURDAY, JUNE 25, 1927

RELATION OF CALCIUM AND BILIRUBINEMIA TO INTOXICATION WITH CARBON TETRACHLORIDE

The extensive employment of carbon tetrachloride in the treatment of persons harboring the hookworm has made it imperative to give careful consideration to the behavior of the anthelmintic substance itself in the body of the host. Tests made on experimental animals have revealed some discrepancies that were difficult to account for. In some groups of individuals enormous doses of the tetrachloride were tolerated, while others showed a considerable rate of morbidity and even of mortality as the result of a far smaller intake of the drug. These seemingly inexplicable variations appear likely now to be accounted for by the studies of Minot[1] on behalf of the International Health Board at the Vanderbilt University Medical School, Nashville, Tenn. The most consistent change found in dogs after the oral administration of carbon tetrachloride was a marked increase in the concentration of bilirubin in the blood as shown by determination of the icteric index. This constituent, which is normally present only in traces in dog's blood, began to increase about twelve hours after the dose was given, and the more severe signs of intoxication appeared soon after the bilirubinemia reached a high level.

It has been known for some time that bile pigments readily combine with calcium in the blood. This protects the organism against the toxicity of bile pigments, but at the same time depletes the reserve of calcium in the tissues and causes an increased elimination. There may be an actual increase in the total calcium present in the blood; but much of it is combined with bilirubin, so that a decreased concentration of ionized calcium results. Minot's observations indicate that the unfavorable symptoms of carbon tetrachloride intoxication appear most commonly in cases in which there has been a deficiency of calcium in the diet. Indeed, experimentally the signs of intoxication can be prevented by the continued addition of calcium to the diet, or cured either by the intravenous injection of calcium chloride or the oral administration of ammonium chloride. The latter, which produces an acidosis, represents an indirect means of raising the level of the blood calcium.

According to Minot, therefore, the immediate cause of death following the administration of carbon tetrachloride may be attributed to the lack of ionized calcium in the blood, secondary to the bilirubinemia. Fortunately, few uncomplicated human deaths from carbon tetrachloride have been reported. The fact that convulsions have been observed in some cases is in harmony with the theory of calcium deficiency, the latter occasionally leading to symptoms of tetany, particularly in children. Minot believes that the experiments indicate the advisability of an adequate calcium diet for a considerable period preceding carbon tetrachloride administration, and suggests the possibility of calcium therapy in cases of acute intoxication. The Nashville investigator has not overlooked the possibility that the production of serious symptoms by the lack of dietary calcium might occur as readily in any other jaundiced condition. This deserves serious clinical consideration.

ANTHOCYANINURIA

Unusual pigmentations of the tissues or fluids of the body are much more likely to obtrude themselves into the notice of the clinical observer than are less conspicuous abnormalities. A jaundiced skin or a bloody urine are not frequently overlooked in the examination of a patient, for they present rather striking variations from the normal appearances in healthy persons. Bilirubinemia and hematuria are symptoms of importance to the physician, for they represent the effect of disturbances in the normal function of the organism. Occasionally discolorations are observed that are due to some uncommon food or drug, and such changes may be both temporary and innocuous. If they simulate the symptoms of more serious abnormalities it becomes highly desirable to make a clear distinction between the significant and the unimportant indications of the unusual. There are drugs which, when eliminated through the kidneys, yield a urine that may simulate albuminuria in some of its reactions.

During the World War when the shortage of food necessitated the use of larger amounts of readily available vegetable foods in the central empires, cases of peculiar skin pigmentation resembling icterus were reported. These differed from the usual color symptoms of true jaundice, however, in that the offending pigment could not be identified with bile pigment. Carrots were present in the diets of all those affected, though not all who ate these vegetables freely were affected. When carrots were withdrawn from the ration the color disappeared from the skin. On the basis of such observations, Hess and Myers[1] designated the clinical picture as carotinemia. The condition was ascribed to temporary excess, in the blood, of the carotinoid pigment carotin, derived from the food. The majority of the cases involved children, although carotinemia has also been reported in adults.[2] It has been characterized by a marked orange yellow skin pigmentation, most intense in the palms of the hands, without involvement of the sclerae. The bright golden yellow blood serum has been found to contain carotin.

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[1] Minot, A. S.: The Relation of Calcium to the Toxicity of Carbon Tetrachloride in Dogs, Proc. Soc. Exper. Biol. & Med. 24: 617 (March) 1927.

Poole[3] has recently called attention to a somewhat analogous condition which apparently occurs rarely; that is, pigmentation of the urine following the ingestion of red beets (*Beta vulgaris*), which might readily be mistaken for other conditions in which red pigment appears in the urine. In the instance reported by him the presence of the dye in the urine probably is the result of a change in permeability of the kidney from injury done by nephritis following an attack of scarlet fever, as it had never appeared prior to that time. As the red color of beets has been attributed to an anthocyanin pigment, the newly described symptom has been designated as anthocyaninuria. The precise identity of the pigment has, however, not yet been accurately established. The absence of blood pigment or its derivatives from the urine, and the lack of red coloration when beets are excluded from the diet, serve as a differential identification.

NORMAL BLOOD COUNTS

Clinical medicine is dependent on certain "normal" standards of comparison for assistance in the diagnosis of many disorders. Body temperature, heart rate, respiration rate, gastric acidity, urinary output and basal metabolic rate afford illustrations of some of the factors that enter into consideration here. Consequently it has become of the greatest practical importance to secure well established standards and likewise readily applicable methods of diagnostic analysis. Appreciation of digression from the normal obviously depends on recognition of what is represented by the latter state. Frequently, if not always, the "normal" is represented by a range of values rather than by any fixed figure or unvarying unit. Circumstances well within the possibilities of good health may give rise to variations within perhaps narrow yet not negligible limits. Environmental conditions, seasons, regimen, age or sex may introduce modifying factors that need to be taken into account before abnormality is postulated.

Not long ago a clinical investigator[4] wrote: "The value of color index, volume index and hemoglobin determinations in the differential diagnosis of anemias is well known. But the absence of correct normal standards for the number, volume and hemoglobin content of red cells and the inaccuracy of almost all the clinical hemoglobin methods is a great handicap." It may come as a surprise to the general practitioner to realize that the repeatedly quoted figures for the average red blood count, namely, 5,000,000 per cubic millimeter for men and 4,500,000 for women, were originally based on relatively few actual counts made seventy-five years ago. Like many data and statements of a general character, they have been handed down by repetition in textbooks without serious experimental confirmation. Of course, experience with thousands of patients has lent confidence to the acceptance of the figures quoted, even though the methods employed for their measurement by Vierordt in 1852 and Welcker in 1854 are said to be obsolete. Can it be asserted with equal assurance, as one may read in a recent guide[5] for medical examinations, that counts below 4,500,000 in the male or below 4,000,000 in the female indicate the presence of anemia, and that anything over 6,000,000 may be considered a polycythemia?

It was with the purpose of supplying better founded standards for the normal averages and determining the range of variation in normal counts that redeterminations of certain blood conditions have been undertaken at the University of Oregon Medical School,[6] on both young men and women in good health. They showed an actual average red cell count in 100 women from 18 to 30 years of age of 4.8 million, 90 per cent of the cases falling between 4.3 and 5.3 million. In contrast to this, there was an average count of 5.4 million in 137 men from 19 to 30 years of age, with 90 per cent falling between 4.7 and 6.1 million. The average total hemoglobin for each hundred cubic centimeters of blood in young women is 13.7 Gm., with 90 per cent of the results falling between 12 and 15.5 Gm. In men the average was 15.8 Gm. (not 13.8 Gm., as is commonly stated), and 90 per cent of the results fell between 14 and 18 Gm. The total volume of packed red cells per hundred cubic centimeters of blood averaged 41 cc. in women (90 per cent between 37 and 45) and 45 cc. in men (90 per cent between 40 and 50).

These studies have yielded some additional facts of an unexpected character. The red cells in women appear to be slightly, though demonstrably, larger than those of men. There are suggestions of similar differences of racial or geographic origin aside from the well known effects of altitude on the distribution of the blood cells. Diurnal and seasonal variations have been described. Obviously, these and other possibilities need far more extensive investigation before thay can enter into the precise definition of "normal" blood counts. The way has been paved for a painstaking evaluation of these.

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[1] Hess, A. F., and Myers, V. C.: Carotineuria: A New Clinical Picture, J. A. M. A. **73**: 1743 (Dec. 6) 1919.

[2] Head, G. D., and Johnson, R. A.: Carotinemia, Arch. Int. Med. **28**: 268 (Sept.) 1921.

[3] Poole, M. W.: Anthocyaninuria, Am. J. Dis. Child. **33**: 784 (May) 1927.

[4] Osgood, E. E.: Hemoglobin, Color Index, Saturation Index and Volume Index Standards, Arch. Int. Med. **37**: 685 (May) 1926.

[5] Fisk, E. L., and Crawford, J. R.: How to Make the Periodic Health Examination, New York, Macmillan Company, 1927.

[6] Osgood, E. E. (footnote 4). Osgood, E. E., and Haskins, H. D.: Relation Between Cell Count, Cell Volume and Hemoglobin Content of Venous Blood of Normal Young Women, Arch. Int. Med. **39**: 643 (May) 1927.

THE VITAMIN CONTENT OF HUMAN MILK

Few foods, if any, have received more detailed consideration with respect to their chemical composition and nutritive possibilities than has milk. The variations in the proportions of the familiar constituents in the mammary secretion of different species and breeds, and likewise the alimentary behavior of the milk nutrients, have been noted, expounded and exploited until they have become part of the popular knowledge of nutrition. The propaganda for milk has made every school child familiar with its values and virtues. There are, however, certain important properties of milk that have not yet been subjected to the rigorous quantitative interpretations that are currently applied to its protein and fat. The vitamins are not yet so readily evaluated in convenient units like pints and calories. Such information as has been accumulated with respect to the A, B and C factors, and more recently the vitamins D and E, has been derived from cow's milk. Knowledge of the vitamin content of human milk, the "prototype of the perfect food," has heretofore been restricted to a few fragmentary observations. It is known that diet influences markedly the vitamin content of the milk of the dairy cow. Almost nothing is recorded about the comparable variations of the human product.

Part of the gaps in such information have lately been filled by a series of excellent studies from the Nutrition Research Laboratories of the Merrill-Palmer School and the Children's Hospital of Michigan, in Detroit.[1] The experiments of Dr. Macy and her associates there show that milk from women on the average American dietary is apparently a relatively rich source of vitamin A. Further evidence of the potency of breast milk is illustrated in the children's clinics, where xerophthalmia due to deficiency in vitamin A is rarely, if ever, observed in nursing infants.

On the other hand, the Detroit observations indicate that the antineuritic potency of mixed human milk, at least from a group of women receiving the average American dietary, is slight. It should be recalled that animal organisms are apparently utterly unable to synthesize vitamin B. In view of these facts, Macy believes it possible that many mothers do not supply enough of vitamin B to their babies. At the best, the average healthy mother is producing a milk that is exceedingly low in vitamin B, and for the economy of the mother's nutrition and to safeguard her offspring, *food materials rich in this important food component should form a prominent part in the diet of pregnant and lactating women.* Food substances rich in vitamins should be introduced early in the nursing period of the infant, whether breast fed or artificially fed.

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[1] Macy, Icie G.; Outhouse, Julia; Long, M. Louisa, and Graham, Alice: Human Milk Studies: I. Technique Employed in Vitamin Studies, J. Biol. Chem. **73**: 153 (May) 1927; II. The Quantitative Estimation of Vitamin A, ibid. **73**: 175 (May) 1927; III. The Quantitative Estimation of Vitamin B, ibid. **73**: 189 (May) 1927. Outhouse, Julia; Macy, Icie G.; Brekke, Viola, and Graham, Alice: Human Milk Studies: IV. A Note on the Vitamin A and B Content of Cow's Milk, ibid. **73**: 203 (May) 1927.

Current Comment

THE INDEX NUMBER

In this number of The Journal appears the index to the first volume for 1927. It has been prepared with a view to making easily available to those who keep copies of The Journal all the material that has appeared during the past six months. It is thoroughly cross indexed, and the practical needs of the reader have been kept primarily in mind. A list of periodicals abstracted, appearing on pages 2055 and 2056, indicates the scope of the Current Medical Literature department of The Journal. The usefulness of a periodical, such as The Journal of the American Medical Association, is entirely dependent on the ability of the user to derive from it all that it offers. The index in this number is planned particularly to make it enduringly useful, rather than a publication of the transient character of most of the periodical literature of our time. Because of the scope of the index, some of the departments regularly appearing in The Journal have been abbreviated in this issue and others omitted.

OCCLUSION AND GASEOUS DISTENTION OF THE BOWEL

The cause of the rapidly developing serious consequences that follow acute intestinal obstruction produced in a variety of ways represents one of the perennially discussed questions of practical medicine. The necessity of prompt surgical intervention is generally recognized, and operative relief is attempted on the basis of extensive empiric experience. The observations on the genesis of the violent effects that follow complete occlusion of the bowel suggest the intervention of some highly toxic substance. A few years ago the intoxication was described by some investigators as the secondary effect of the loss of water through the commonly attendant vomiting and deficient absorption. The consequent dehydration was assumed to lead to disintegration of tissue substance, with liberation of toxic products. This view, championed by Hartwell and others, has for the most part been abandoned in favor of the hypothesis of a more direct production of harmful substances directly by bacterial changes in the occluded portions of the bowel. A contributory possibility has recently been described by Gatch, Trusler and Ayers[1] of the Indiana University School of Medicine at Indianapolis. They have demonstrated clearly by animal experiments that when the gas pressure within an occluded loop is increased there is a proportionate decrease in the rate of blood flow through it. In this way bacterial changes within the lumen may lead to anemic stasis of the blood in parts of the intestine. As the Indiana surgeons point out, one can readily surmise that, even in the absence of mesenteric strangulation, circulatory stasis and necrosis may develop in the obstructed bowel from gaseous distention alone. The rate at which this process operates will depend on the nature and location of the obstruction. In cases of simple occlusion in which incarceration of the bowel does not occur, reverse peristalsis may for a time prevent overdistention. Usually, however, they add, the complicated intestinal loops trap the gas in small pockets, and the constant gaseous formation from bacterial activity readily leads to pressure sufficient to occlude the blood supply in the manner described. They regard it as obvious, however, that this mechanism is more rapidly fatal under conditions in which a section of the bowel is incarcerated. It is only a small step further to conceive how gaseous distention by bacterial action in the strangulated loops rapidly produces gangrene and fatal absorption of toxins. Hence Gatch and his colleagues believe that necrosis of the bowel is the chief factor in making intestinal obstruction a desperate surgical emergency and that this process must be arrested early or death is inevitable.

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[1] Gatch, W. D.; Trusler, H. M., and Ayers, K. D.: Effects of Gaseous Distention on Obstructed Bowel, Arch. Surg. **14**: 1215 (June) 1927.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

CALIFORNIA

Police and Society Cooperate on Parking Problem.—The chief and the captain of police of Fresno appeared before the Fresno County Medical Society, May 3, to consider the increasingly troublesome problem of parking by physicians on the streets of Fresno. Heretofore, special privileges have been granted to physicians, and it appears these privileges have been abused by a few who obtained duplicate plates for their second car, which was used by the family; nurses, cultists and dentists to whom parking privileges was not extended also attempted to profit by the old plan. The police department, therefore, canceled the parking privileges to all physicians, May 1, and now plans to issue new distinctive insignia for physicians' cars to be selected by a committee of the county society acting in cooperation with a committee representing the police department.

Millions for Small-Salary Patients—Physicians' Services Free.—The Good Hope Hospital Association, Los Angeles, a nonprofit, nonstock organization, has a fund of more than $2,000,000 which has been invested in securities for the purpose of aiding persons earning small salaries to pay their hospital expenses when ill. Dr. Ernest A. Bryant, one of the directors, writes that the hospital has a staff "picked from the best talent in all the specialties who, of course, donate their services." For the present an agreement has been made with the Good Samaritan Hospital whereby as many rooms as the Good Hope Hospital Association needs for patients up to 100 will be provided. The hospital will collect from patients an amount which they are able to pay, and the Good Hope Hospital Association will pay the difference between that and the actual per capita cost. The association hopes to raise a still larger fund and eventually to build its own hospital. In May, Mr. Henry E. Huntington died, leaving $2,000,000 to build and endow a hospital in memory of Collis P. Huntington and Howard E. Huntington, and it may be that this fund and that of the Good Hope Hospital Association may combine their resources. The other directors of the Good Hope Hospital Association are Dr. John R. Haynes, Allan C. Balch, Michael J. Connell, Miss Myra Hershey, James W. Jameson and William B. Mathews. In connection with the Good Hope Hospital Association, Mr. Connell has organized a sanatorium for the treatment of those who may be benefited by heliotherapy. Mr. Connell furnished funds for the site, building, equipment and endowment, and a location is being sought in the mountains of southern California. The directors and trustees of the sanatorium are Mr. Connell, Mr. Balch and Dr. Bryant.

Faculty Changes at University of California.—Samuel S. Maxwell, Ph.D., professor of physiology, University of California Medical School, will retire, August 4. Dr. Maxwell, who came to the university in 1905, has been appointed professor emeritus, and will be succeeded as professor of physiology by James M. D. Olmsted, Ph.D., associate professor of physiology, University of Toronto Faculty of Medicine. Dr. Ian Maclaren Thompson, assistant professor of anatomy at McGill University Faculty of Medicine, Montreal, has been appointed associate professor of anatomy at the University of California, effective, July 1; Drs. William B. Faulkner, Jr., and Raymond J. Millzner have been appointed instructors in surgery; Dr. George C. Hensel has been made an instructor in orthopedic surgery, and Dr. Harry M. Kanner an instructor in obstetrics and gynecology. The following promotions on the faculty of the University of California Medical School have been announced. The rank after each name indicates that to which the member has been promoted:

William J. Kerr, professor of medicine.
Howard C. Naffziger, clinical professor of surgery.
Edward S. Sundstroem, associate professor of biochemistry.
Olga Bridgman, associate professor of psychology and pediatrics.
Hans Lisser, associate clinical professor of medicine.
Richard W. Harvey, associate clinical professor of neurology.
Vaclav H. Podstata, associate clinical professor of psychiatry.
Edward W. Twitchell, associate clinical professor of neurology.
Hiram E. Miller, associate clinical professor of dermatology.
Mary E. Botsford, associate clinical professor of anesthesia.
Howard E. Ruggles, associate clinical professor of roentgenology.
Irwin C. Schumacher, assistant professor of medicine.
Alfred H. Washburn, assistant professor of pediatrics.
Eva C. Reid, assistant clinical professor of psychiatry.
Laurence Taussig, assistant clinical professor of dermatology.
Montague S. Woolf, assistant clinical professor of surgery.
Herbert S. Thomson, assistant clinical professor of surgery.
Mary Kavanagh, assistant clinical professor of anesthesia.
Antonio J. Salle, M.S., instructor in bacteriology.
Stacy R. Mettier, instructor in pathology.
Thomas H. McGavack, instructor in homeopathic materia medica.
Ottiwell W. Jones, Jr., instructor in surgery.
Stanley H. Mentzer, instructor in surgery.
John C. W. Taylor, instructor in otorhinolaryngology.
Ernst Wolff, instructor in pediatrics.

The following members of the faculty have resigned:

Goodwin L. Foster, assistant professor of biochemistry.
Guy W. Clark, assistant professor of pharmacology.
Lovell Langstroct, assistant clinical professor of medicine.
Harry I. Wiel, instructor in medicine.

CONNECTICUT

Honorary Degrees Sold—Testimony at Hearings of Eclectics.—At the hearing of appeals of eleven eclectic physicians, following revocation of their licenses by the state board of health after the diploma mill investigation of 1923, testimony was presented at New Haven, June 15, indicating that Dr. Date R. Alexander, head of the Kansas City College of Medicine and Surgery, sold honorary degrees for $200 each to any one who had completed four years of study in a medical school. Those whose appeals were being heard who possessed these honorary degrees were said to be Samuel Posner, New Haven; David K. Aronson, Waterbury; James Bockman, Bridgeport; Michael M. J'Anthony, Litchfield, and William D. MacCormack and Raymond C. Prisque, Windham. The appellants who received regular degrees from this school are Samuel Slabotsky, New Haven, and James W. Bush and Julius P. Karp, Hartford. The others who appealed at this time were A. C. H. Von Sassenhofen, Bridgeport, and Aurelius R. De Janis, Waterbury. Frederick C. Waite, Ph.D., Western Reserve University School of Medicine, Cleveland, a special investigator for the state of Missouri during the diploma mill investigation, testified that, in view of the publicity attending the investigation, Dr. Alexander said that he was going to raise the price of honorary degrees; that during the term 1922-1923 this college issued fifty-nine honorary degrees and only twenty-seven regular degrees, and that neither this college nor the St. Louis College of Physicians and Surgeons had either the equipment or the faculty to teach courses in medicine adequately.

DISTRICT OF COLUMBIA

Personal.—Dr. Charles W. Richardson, Washington, a trustee of the American Medical Association, was awarded the honorary degree of doctor of science at the recent commencement of the University of Pennsylvania for "his distinguished career and contribution to knowledge"; Dr. Richardson received a similar honor from George Washington University in 1921.

Warning Against Bathing in Potomac.—Following analyses of water from the Potomac, the District health officer has issued a warning against bathing in the river in the vicinity of Washington. The report states that the water is extraordinarily high in oxygen consumed and fairly high in volatile solids. Bathers have been admonished for years to avoid these waters on account of pollution by the city.

Smallpox Outbreak Grows.—Eleven new cases of smallpox have been reported in the District of Columbia following the outbreak believed to have been introduced by members of a carnival which recently visited Washington. The total number of cases, June 18, was twenty-three and all the patients were colored. The department of health has ordered all permits to outside shows which do not have medical staffs of their own withheld until their personnel has been inspected by the department.

ILLINOIS

Personal.—Dr. William S. Keister, formerly health officer of Decatur, has taken a position as health officer of Prince George County, Maryland.——Dr. Bernard Klein, Joliet, has been appointed physician to the Will County Sanatorium, to succeed Dr. John W. Krohn, resigned.

Liquor Licenses Revoked.—The district prohibition administrator, with headquarters in Chicago, recently revoked the liquor licenses of the following for violation of the prohibition law and regulations:

Dr. John P. Benson, Joliet
Dr. Lucien E. Demke, Joliet
Dr. George E. Fosberg, Chicago
Dr. Edward J. Robinson, Chicago

Record Low Infant Mortality Rate.—The infant mortality rate of Illinois decreased 4.5 per cent in 1926 over the rate of the previous year, reaching the lowest point recorded in the state. Last year 9,297 babies under 1 year of age died, which was 524 less than the number in 1925. Most of the improvement in the rate occurred in Chicago where it was 66.6 per thousand births against 71.5 downstate. Heretofore the Chicago infant mortality rate has always been higher than the downstate rate. The average annual number of infant deaths in Illinois for the ten years prior to 1921 was 12,889; for the six years since it has been 10,087.

Chicago

Personal.—Dr. Joseph C. Springer, for many years coroner's physician of Cook County, has been appointed criminologist to Chicago and Cook County, a newly created position announced jointly by the chief of police and coroner.——Dr. William C. Masslow has been appointed health officer of Forest Park.——Dr. Olin West, general manager, American Medical Association, addressed the Physicians' Fellowship Club, 2451 Kedzie Boulevard, June 24; this was "Presidents' Night, an annual meeting in honor of physicians who have served as president of the club.——Dr. Herman N. Bundesen, city commissioner of health, received the honorary degree of doctor of science from Northwestern University, Evanston, June 21.

Archibald Church Library.—The medical library on the first floor of the Ward Memorial Building on McKinlock Campus, which has been named the Archibald Church Library of Northwestern University Medical School, was formally dedicated, June 15 in the presence of many local physicians and alumni of the school. There are more than 22,000 bound volumes in the library, and 175 medical journals. In addition to endowment provided by Dr. Archibald Church and his wife, substantial contributions have been received from Drs. Joseph B. DeLee and Arthur H. Curtis, from Augusta Elizabeth Lehmann and from the alumni association of the medical school. Collections of books have also been received, amounting to more than 2,000 bound volumes in the last two years. There are also about 10,000 unbound volumes, pamphlets and reprints.

Drs. Luckhardt and Carter Honored.—The International Anesthesia Research Society presented to Dr. Arno B. Luckhardt, professor of physiology, University of Chicago, and T. Bailey Carter, D.Sc., a scroll of recognition at Washington, D. C., May 16. The scroll, signed by the officers of the board of governors, was presented in appreciation of "meritorious research in anesthesia and analgesia, and for prolonged, untiring and resultful experimental laboratory studies of the biochemistry and pharmophysiopathology of ethylene, as well as such splendid cooperation of pure, with applied science, as enabled the surgeons, specialists and anesthetists of the Presbyterian Hospital (Chicago) to rapidly establish the clinical use of ethylene as a new and valuable routine method of anesthesia for the benefit of suffering humanity."

IOWA

Dr. Orton Resigns.—Dr. Samuel T. Orton, head of the department of psychiatry, State University of Iowa College of Medicine, Iowa City, has resigned, it is reported, and the state board of education has accepted the resignation. Dr. Orton, who has been with the medical school at Iowa City since 1919, is also director of the state psychopathic hospital; his resignation is said to be the eighth among members of the faculty of the medical school in the last few weeks.

Twin Lakes District Postgraduate Assembly.—The fifth annual assembly of the Twin Lakes District Medical Society was held at Burns' Alhambra Pavilion, Twin Lakes, Rockwell City, June 24, under the presidency of Dr. Alpheus W. Patterson, Fonda. The entrance requirements, the announcement states, were a well filled picnic basket, golf clubs and bathing costumes, and $1 for the registration fee. The speakers included Drs. Lee W. Dean, Iowa City, who spoke on "Otolaryngologic Treatment of Arthritis, Chorea, Asthma and Bronchiectasis" supplemented with lantern slides and a discussion of cases referred by members of the assembly; Dr. Clarence W Hopkins, Chicago, "Treatment of the Commoner Fractures", Dr Disraeli W. Kobak, Chicago, "Physical Therapy"; Dr. George W. Hall, Chicago, "Coincidence of Injuries and Neurologic Disorders"; Dr. Clifford G. Grulee, Chicago, a clinical discussion of anemias in children, pneumonia, constipation, enuresis and nervous states, and Dr. Everett D. Plass, Iowa City, a discussion of obstetric cases, including the technic for blood transfusion for puerperal septicemia, and other subjects relating to the practice of obstetrics. The Twin Lakes District Medical Society comprises the counties of Calhoun, Carroll, Greene, Ida, Pocahontas, Sac, Webster and Wright. The success of previous meetings, however, has attracted physicians from beyond the district.

KENTUCKY

Personal.—Dr. Henry P. Sights has been elected president of the Lions Club of Paducah.——Dr. Wilfred J. McIvor, Winnipeg, Canada, has joined the staff of the Moseley Hospital, Henderson, to succeed Dr. James P. Vye, who returned to Canada.——Dr. Oliver R. Kidd, Paducah, has been elected president of the Southwestern Kentucky Medical Association for the ensuing year, and Dr. Lee P. Molloy Paducah, secretary.——Dr. and Mrs. Henry V. Johnson entertained the members of the Scott County Medical Society, May 5, with a dinner at their home; Dr. Johnson addressed the society, June 2

Russellville Rotary 'Doctors' Day."—Nearly every physician in Logan County was a guest of the Russellville Rotary Club at the observance of the "doctors' day" program in May. Dr. William D. Haggard, Nashville, Tenn., former President of the American Medical Association, gave an address. There was group singing; some of the music had been written especially for the occasion to feature the "Medico." The physicians' wives, who are members of the local Woman's Club, served a feast of good things to eat; then a scientific program was presented at the moving picture theater, where Dr. Haggard gave an illustrated talk on "Methods of Diagnosis in Diseases of the Stomach and Gallbladder." Dr. William A. Duncan, president of the Logan County Medical Society, was in charge of the program.

LOUISIANA

Resolution—Physicians in Flood Areas Also Need Help.—A committee on health and sanitation at a meeting in Opelousas, June 6, adopted a resolution recognizing the primary importance of sanitation and hygiene in the flooded areas, and recommending, among others things, that: (1) the flooded areas be inspected and reported on before a permit is granted to return; (2) sanitary units be maintained until satisfactory sanitation is established; (3) necessary funds for the prosecution of the health campaign be included in the general estimate for rehabilitation; (4) as in most instances the physicians in the flooded areas require financial aid, they be carried on a salary or fee basis of the Red Cross for eighteen months with the provision that they answer all charitable calls in their community; (5) physicians not assigned to any one fixed area for charitable work may submit bills for their usual professional services rendered refugees; (6) losses by physicians in flooded areas be given respective consideration; (7) an appropriate number of nurses be assigned to cooperate with the medical authorities in the flooded areas.

MARYLAND

Dr. Truitt Appointed Director of New Clinic.—An appropriation of $30,000 has been made by the Commonwealth Fund, New York, to provide a mental hygiene clinic for the Mental Hygiene Society of Maryland, and an additional $23,000 will be advanced if the work is satisfactory and the support is needed. The appropriation is for two years, the additional fund being reserved for the three following years. The clinic will be established at the University of Maryland School of Medicine, Baltimore, and will be in operation in October. Dr. Ralph C. P Truitt, New York, director, department for the prevention of delinquency of the National Committee for Mental Hygiene, will be the director The president of the Maryland Mental Hygiene Society for which the new clinic will be established, is Dr Adolf Meyer, director, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore.

Personal.—Dr. James G. Howell, director, Relay Sanatorium, Relay, resigned, June 1, to devote his time to general practice.——Dr. Timothy A. Callahan has been appointed health officer of Harford County to succeed Dr. Walter B. Kirk, Darlington.——Dr. Walter M. Simpson, Baltimore, has accepted the position of pathologist at the Miami Valley Hospital, Dayton, Ohio.——Prof. Knight Dunlap, Ph D, Johns Hopkins University, has been granted a year's leave of absence to serve as chairman of the division of anthropology and psychology of the National Research Council in Washington, and Dr Karl Buehler of the University of Vienna will take Dr. Dunlap's place at Johns Hopkins the first half of the year, and John E. Coover, Ph.D. Stanford University, during the second half.——Dr. Hugh H. Young Johns Hopkins University School of Medicine, was guest of honor at a dinner at the Hotel Belvedere, recently, which was attended by about fifty of his former students and associates. The toastmaster was Dr. Alexander Randall, Philadelphia, and the chairman of the committee, Dr Montague L. Boyd, Atlanta.——Dr. Thomas R Pratt, Jr., Charlottesville, Va., has been appointed superintendent of the Eastern Shore Tuberculosis Sanatorium, Salisbury, to succeed Dr. Alva B. Burris, who will devote his time to private practice The supervision of the hospital, previous to June 1, was vested in a local board of directors, and since then has been shifted to the state tuberculosis commission.

MINNESOTA

Society News.—Dr. William M. James of the Herrick Clinic, Panama, gave a Mayo Foundation lecture, June 6, on "Intestinal Amebiasis in Man." The lecture was illustrated by specimens and lantern slides, the exhibit having been awarded a medal at the recent meeting of the American Medical Association in Washington. Dr. James has been in the Canal Zone since 1906.——The fifty-ninth annual meeting of the Minnesota State Medical Association will be held at Duluth, June 30-July 2.

Dr. Morton Wins Virginia Prize.—According to the bulletin of the Mayo Clinic, Dr. Charles B. Morton will be awarded the John Horsley Memorial Prize at the commencement exercises of the University of Virginia. The prize, consisting of $1,000, was established by Dr. John Shelton Horsley in 1925 in memory of his father, and is awarded every two years for the best thesis submitted on research on some problem in general surgery by a graduate of the University of Virginia. Dr. Morton's thesis was on "Findings in Experimentally Produced Ulcer: Etiologic and Therapeutic Considerations"; his work was done at the Mayo Foundation (The Journal, July 11, 1925, p. 124).

MISSISSIPPI

Physicians and the Flood.—Although most of the physicians in the delta flooded area lost their possessions and some were financially ruined, they are undaunted, cheerful and optimistic with regard to the future. All of them, our correspondent writes, worked almost day and night to protect and relieve their fellow men without thought of remuneration, and the state board of health had offers of services from physicians in the state sufficient to take care of a disaster several times the enormity of the flood. In the nine counties inundated, seventy nurses were used in relief work. The North Carolina State Board of Health furnished to the Mississippi board five sanitary inspectors; Indiana furnished three, Alabama one and one sanitary engineer. The state board distributed 252,000 cc. of typhoid vaccine between April 20 and June 1. Temporary full-time health departments have been organized for a period of sixty days in Humphries, Sunflower and Issaquena counties. With an intensive public health program during this period of immunization and general sanitation, it is possible that the citizens will at the end of that time desire to establish permanent health departments.

MISSOURI

Personal.—Dr. Jabez N. Jackson, Kansas City, President of the American Medical Association, received the honorary degree of doctor of law at the commencement exercises of the University of Missouri, June 8.——Dr. William Engelbach, St. Louis, received the honorary degree of doctor of science, June 8, from his alma mater, the Illinois College at Jacksonville, Ill.

MONTANA

State Medical Meeting.—The forty-ninth annual meeting of the Medical Association of Montana will be held at Missoula, July 13-14. under the presidency of Dr Fred F. Attix, Lewiston The meetings and exhibits will be held in the Elks Club Building; the house of delegates meets in the Florence Hotel. Every physician in the state is invited to take part in this meeting, and all papers are open to discussion. The surgical address will be delivered by Dr. Jabez N. Jackson, Kansas City, President, American Medical Association, Olof Larsell, Ph D., Dr. Noble W. Jones, Dr. Allen P. Noyes and Ben I Phillips, of the University of Oregon Medical School, Portland, will speak on "Effect of Nucleic Acid and Nucleoproteins on Normal Animals. Experimentally Produced Anemic Animals and Anemic Humans", Dr. James Tate Mason, Seattle, formerly secretary of the Section on Surgery, General and Abdominal, of the American Medical Association, will discuss "Management of Exophthalmic Goiter"; Dr. Allen R. Foss, Missoula, "Hay-Fever in Montana"; Dr Louis W. Allard, Billings, "Scientific Treatment of Infantile Paralysis"; Dr. Charles F. Coulter, Great Falls, "Diagnosis of Trachoma ; Dr. Archie L. Gleason, Great Falls, "Practical Use of Quartz Light and of Diathermy"; Dr. William F. Cogswell, Helena, "The Practicing Physician in Public Health"; Dr. Harold W. Gregg, Butte, "Nonsyphilitic Sclerosis of the Central Nervous System," and Dr Thomas A Fitzgerald, Missoula "Scarlet Fever." The Kiwanis Club will entertain the physicians at lunch, Tuesday. There will be a smoke , Tuesday evening, a luncheon with the Rotary Club, Wednesday; a sightseeing trip, Wednesday afternoon, a dance, Wednesday evening, and a "lumberjack lunch" at the Anaconda Copper Mining Company's mill at Bonner, Thursday The annual banquet will be Thursday evening The Health Association of Montana will meet, July 11 12, in Missoula, and the Montana Academy of Oto-Ophthalmology, July 12.

NEW YORK

Health at Albany.—Telegraphic returns to the U. S. Department of Commerce from sixty-five cities with a total population of about 29 million, for the week ending June 11, indicate that the highest mortality rate (20) was for Albany. The mortality rate for Albany for the corresponding week last year was 18.8, and for the group of cities, 12.5.

Poliomyelitis Cripples Under State Care.—May 1, the total number of patients who have been crippled by attacks of poliomyelitis and are now under state care amounted to 1,850, of whom 359 suffered the attack previous to 1916. Clinics for cripples were held in April in Cattaraugus, Olean, Franklinville, Saratoga, Auburn, White Plains, Oswego, Fulton and Poughkeepsie. The total attendance, the state department of health states, was 186, of whom 112 had had poliomyelitis and seventy-four showed other forms of orthopedic defects.

Mr. Eastman Donates Dental Dispensary to London.—It has been announced that Mr. George Eastman of Rochester has given $1,500,000 to establish a dental dispensary in London, England, which will be associated with the Royal Free Hospital. It probably will be much like the Rochester Dental Dispensary, Rochester, N. Y. The agreement provides that the British friends of the project raise funds to defray the running expenses of the institution. The activities of the dispensary are to be confined to a definite district in London which has a population of about 600,000, mostly poor and middle class persons.

New York City

Dermatologic Clinic Reorganized.—The New York Post-Graduate Medical School announces that its dermatologic clinic has been reorganized and equipped to teach all branches of dermatology and syphilology; it occupies eighteen rooms, and has facilities for the recent advances in diagnosis and treatment. Dr. George M. MacKee is director of the department, and there is a staff of forty members, twenty-one clinical assistants and ten technicians. Many members will be constantly engaged in research work.

Survey of Epidemic Encephalitis.—Large gifts have been provided by J. Pierpont Morgan and William H. Matheson for a world-wide survey of epidemic encephalitis. The plans have been completed, says the New York *Medical Week*, and the commission is to consist of the following:

Dr. Haven Emerson, professor of public health administration, Columbia University College of Physicians and Surgeons.

Dr. Frederick P. Gay, professor of bacteriology, Columbia University College of Physicians and Surgeons.

Dr. William H. Park, director, bureau of laboratories, New York City Health Department.

Dr. Josephine B. Neal, director of research.

Society News.—The International Medical Club gave a dinner, May 31, at the Columbia University Club in honor of Dr. Georges Portmann.——Donald B. Van Slyke, Sc.D., of the Rockefeller Institute, has been elected president of the Harvey Society for the ensuing year.——Dr. John B. Deaver, Philadelphia, was guest of honor at the dinner of Medico-Surgical Society of New York, Hotel McAlpin, May 21; he spoke on "Preventive Measures Against Gastric Ulcer and Malignancy."——The American Society of Medical History held a "balneology evening," June 9; Alfred Martin read a paper in English on "Geschichte Der Balneologie," and A. H. Appelmann, Ph.D., gave an illustrated talk on "Health Resorts of Germany."

OREGON

Personal.—Dr. Thurston W. Laraway, Veronia, has been appointed county health officer, with headquarters at Roseburg to succeed Dr. Richard F. Thompson.——Dr. Warren C. Hunter has resumed his work at the University of Oregon Medical School after the completion of a fellowship with the National Research Council in the department of pathology under Dr. Aldred S. Warthin, University of Michigan Medical School, Ann Arbor.

Roentgen-Ray Work Limited in Favor of Radio.—The council of the city of Salem adopted an ordinance, May 2, making it unlawful in that city to operate any apparatus that interferes with radio broadcasting or reception between 7 and 11 o'clock p. m. of any day, and between 11 and 12 o'clock noon on Sundays. The apparatus named includes, among others, roentgen-ray machines, violet ray machines, machines using the Tesla coil, or any machines incorporating devices producing high frequency oscillations, excepting radio stations licensed by the federal government or employed in interstate communication. The only persons excepted are practitioners licensed by the state in the regular course of the practice of their profession in emergency cases only. Persons desiring to operate such apparatus must file a written application for a permit which costs $1, and expires on the last day of each year. The city engineer is given the right to enter any premises for the purpose of inspecting apparatus coming within the term of the ordinance. Permits may be revoked for misrepresentation to an inspector or for violation of the provisions of the ordinance. The penalty imposed for violation is a fine of from $10 to $100 for the first offense, and from $50 to $250 for repeated offenses, or ten days in jail or both. The council considered the ordinance necessary for the immediate preservation of the public health, peace and safety of Salem, and therefore declared an emergency existed and the ordinance effective on the day of its passage. Salem has a population of about 20,000.

PENNSYLVANIA

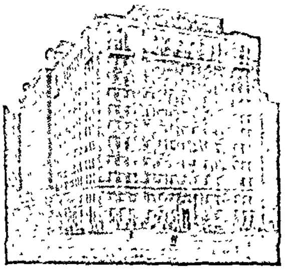
Personal.—Dr. Philip E. Marks has been appointed superintendent of the bureau of infectious diseases of the Pittsburgh Department of Health, succeeding Dr. Richard G. Burns, who was appointed city health commissioner to succeed the late Dr. Carey J. Vaux.——Mr. Frank E. Brooke, superintendent of the Harrisburg Hospital, Harrisburg, has resigned, effective, August 1.

Society News.—Dr. John S. Lundy, Mayo Clinic, Rochester, Minn., addressed the McKeesport Academy of Medicine, June 13, on "Regional Anesthesia."——Drs. John F. McCullough and James Homer McCready addressed the Allegheny County Medical Society, Pittsburgh, June 21, on "Recent Advances in the Examination of the Bronchial Tubes"; Dr. Charles Howard Marcy, "Pneumothorax in the Treatment of Nontuberculous Lung Diseases," and Dr. Forrest L. Schumacher, Pittsburgh, "Roentgen-Ray Diagnosis of Nontuberculous Lung Infections."

Philadelphia

Personal.—Dr. Herbert M. Goddard was elected president of the Physician's Square Club at the annual meeting, May 31.——Dr. James M. Anders received the degree of doctor of science at the commencement at Ursinus College, June 6.——Dr. Robert Tait McKenzie, professor of physical education and physical therapy, University of Pennsylvania School of Medicine, sailed for Scotland, June 4, to arrange for the war memorial "from his hands" that is to be erected in Edinburgh.——Dr. Ellen C. Potter, formerly state secretary of welfare, has been appointed national chairman of the campaign to raise $1,500,000 for the Woman's Medical College of Pennsylvania.——Dr. John A. Kolmer, professor of bacteriology and pathology, University of Pennsylvania Graduate School of Medicine, received the honorary degree of doctor of laws at Villanova College, July 9.——Dr. Franklin Brady has been appointed clinical professor of surgery at Temple University School of Medicine.——Dr. Ross H. Skillern was made an honorary member of the Pacific Coast Ophthalmological Society at its meeting in Spokane, June 6-7.

Proposed Building for Jefferson Medical College.—A campaign for $1,500,000 for a new medical building at Jefferson Medical College was conducted, June 6-17. The proposed building is to match the new sixteen story Jefferson Hospital, opened in 1924, with which it will be connected. It will be of yellow brick, twelve stories high, the first six floors being equipped for medical school purposes, and the remaining floors being left unfinished for future extension of the college or for conversion into hospital facilities for persons of moderate means. The present college building, erected in 1898, will be remodeled on completion of the new building for an outpatient department. Jefferson Medical College and Hospital will comprise a group of nine buildings when this structure is finished. The trustees' plan for a greater Jefferson calls for an ultimate expenditure of more than $2,000,000. There are opportunities for gifts in memory of loved ones or to perpetuate a family name by giving a laboratory, classroom or other facilities. Floor plans and a special list for memorial gifts will be furnished on request. The drive closed with subscriptions amounting to $1,513,482. Work on the new building will start at once.



GENERAL

Society News.—At the annual meeting of the Pacific Coast Oto-Ophthalmological Society, held, June 6-7, Spokane, Wash., Dr. William J. Mellinger, Santa Barbara, Calif., was elected president; Drs. Robert Hampton, Salt Lake City, and Allison T. Wanamaker, Seattle, vice presidents, and Dr. Walter F. Hoffman, Seattle, secretary-treasurer.——An International Congress on Mental Hygiene will be held in Washington, D. C., April, 1929.

May Automobile Deaths—Annual Increase 7 Per Cent.—In the four weeks ending May 21, automobile accidents caused 529 deaths in seventy-seven large cities of the United States, as compared with 493 deaths in the four weeks ending May 22, 1926. For the fifty-two week periods ending May 21, 1927, and May 22, 1926, the respective total numbers of deaths from automobile accidents in the seventy-seven cities were 6,938 and 6,348, an increase during the single year of 7 per cent.

Board to Study Montreal Typhoid Epidemic.—Surg. Gen. Hugh S. Cumming, U. S. Public Health Service, has arranged through the deputy minister of health of the Dominion of Canada for a board of officers of the public health service to visit Montreal to make an intensive survey of the typhoid situation in that city, and to secure the facts as to the source and extent of the outbreak. The board will secure such information as might be needed to enable it to submit recommendations to prevent the spread of typhoid from Montreal into the United States. The officers detailed on the board are Surgs. Leslie L. Lumsden, James P. Leake and Clifford E. Waller, and Sanitary Engineer H. R. Crohurst, all men of experience as sanitarians in the public health service.

Health Rehabilitation in Flooded Districts.—The Red Cross announced, June 16, plans for the preservation of health in areas recovering from the Mississippi flood. The expenditure of $500,000 for health and sanitation was approved by Secretary of Commerce Hoover, James L. Feiser, vice chairman of the Red Cross, and Henry M. Baker, disaster relief director of the Red Cross. There is to be, according to the announcement, a personnel of 267 health workers, including forty-five physicians, forty-nine health officers, twenty sanitarians, fifty sanitary inspectors and 103 nurses. The Red Cross plans comprise the immunization of all persons returning to the flooded areas against typhoid and smallpox, the purification of water supplies, the destruction of carcasses, the spraying of stagnant water to prevent mosquitoes, and personal nursing service. Up to June 15, when the emergency health program was practically completed, $190,000 had been spent on health work.

Institute of American Chemical Society.—An institute of chemistry will be held at Pennsylvania State College, State College, Pa., July 4-30, under the auspices of the American Chemical Society. Leaders in chemistry throughout the United States and abroad will give courses, special lectures and conferences, providing thus an unusual opportunity for contact with research workers, and for keeping in step with the progress of chemistry. Part of the program will appeal to physicians. W. Mansfield Clark of the hygienic laboratory of the U. S. Public Health Service will discuss "Oxidation and Reduction in the Living Cell"; H. C. Sherman, "General Status and Problems of Nutrition," July 27, and Dr. J. C. Drummond, University College, London, "Vitamins," July 28. Instruction will begin daily at eight in the morning; there will be at least two evening talks a week of a popular nature, and exhibits of laboratory equipment and possibly of chemical material of educational value. Fraternity buildings near the chemical laboratories on the campus will be reserved for the exclusive use of those attending the institute for $15 a week, including board. The fee for membership for the entire session will be $30. Golf, tennis, mountain drives, hiking and simply loafing with fellow chemists are among the diversions for leisure hours. The president of the college will give a garden party and reception, July 4, which the president of the American Chemical Society is expected to attend.

FOREIGN

Meeting on Disorders of Digestion.—The annual meeting of the Gesellschaft fur Verdauungs- und Stoffwechselkrankheiten will be held in the Hofburg, Vienna, October 4-7. The topics will include, among others, intestinal obstruction and ileus, diabetes, and osmosis in metabolism, and the speakers will be from Budapest, Vienna, Frankfort-on-the-Main, Berlin, Göttingen, Basel and Stockholm. The general secretary, Prof. von den Velden, Bamberger Strasse 49, Berlin W30, will give further information.

American Medical Association of Vienna.—Dr. Alfred E. Rhein, Rosedale, Ind., has been elected president of this association for 1927; Dr. Earl R. McCarthy, Chicago, vice president; Dr. Abraham I. Haskell, Minneapolis, Minn., secretary, and Dr. Herbert H. Davis, Omaha, Neb., treasurer. The association publishes a monthly journal, *Ars Medici*, which reviews and abstracts all branches of foreign medical literature. Physicians in good standing in their local organizations who visit Vienna are invited to avail themselves of the association's clubrooms, and those going abroad to study are invited to join. The purpose of the society is the systematic promotion of international postgraduate study. The April 6 meeting of the association was given over to an illustrated travelogue on Italy by Mr. Katz, formerly a student of the University of Vienna.

Postgraduate Course in Dermatology.— Under the directorship of Prof. L. M. Pautrier, a practical course in dermatology and venereology will be given at the University of Strasbourg, September 19-November 5, at the clinic for cutaneous diseases. The lectures will be illustrated by demonstrations of cases, photographs and by bacteriologic and histologic demonstrations; students will have an opportunity to apply methods of treatment and have access to the clinic outside the hours of instruction. A certificate signed by all the lecturers will be given those who complete the course. The fee is 300 francs. A laboratory course of twenty lectures and demonstrations in the general pathology of dermatoses will be given at the same time. Students may make collections of histologic slides and cultures of various ring worm parasites. Further information will be given on request to Professor Pautrier, 2 Quai St. Nicolas, Strasbourg, France.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 4, 1927.

Spahlinger Will Not Accept a Challenge

The *Daily Express* has offered to pay $50,000 toward the work of Spahlinger in connection with his treatment of tuberculosis on condition that a committee of medical experts be permitted to examine and report on it. Every effort was made to get into touch with Spahlinger, who was in London, but without success. Messages were left for him with his friends and at his hotel, but met with no response. A telegram was sent to him where he has been staying, calling his attention to the offer and requesting him to receive a representative of the *Daily Express* for the purpose of discussing his acceptance or rejection of the proposal. But an answer was not received. It was learned, however, that he was fully aware of the offer, for he was in consultation with friends concerning it. The committee proposed by the *Daily Express* consisted of Sir Thomas Horder, Dr. R. A. Young, senior consultant to the Brompton Hospital for Consumption, and Dr. Lyle Cummins, professor of tuberculosis in the University of South Wales. The terms of reference to this committee were that it was to satisfy itself that the claims made by Spahlinger present substantial hopes of a cure. In that case the *Daily Express* would contribute $50,000 to the Spahlinger Institute at Geneva for the further prosecution of the work, and would use its influence in procuring greater funds for this object. The only reply that could be evoked from Spahlinger was that he refused to be interviewed until an inordinately long and argumentative letter, which he sent to the *Daily Express* in January, was published. A reasonable summary was published—quite enough to cover the controversial points, but the letter did not contain any proof whatever that Spahlinger possessed a cure for tuberculosis.

Electrocuted While Listening In

A woman, aged 59, an expert in electrolysis, was electrocuted while listening to a wireless concert. She went to bed as usual, taking with her a book and a pair of headphones, which she connected with a receiving set. Some time later, about 10 p. m., her daughter came home and went to her bedroom, and was puzzled to notice sparks coming from the headphones near her bed. The sparks were making an unusual crackling noise. She then went to her mother's room. The room was in darkness but sparks were coming from the direction of the bed. Her mother was lying across the bed as though she had been knocked backward with some force. The daughter took the headphones off her mother's head and found that they had left marks of burns. In the mother's left hand was a small brass electric reading lamp. Her hand was severely burned and she was burned about the eyes, as though sparks had been coming from her metal spectacles as from the headphones. Some time ago when listening in she received an electric shock when she touched the reading lamp and was advised not to use it again.

At the inquest an electrical expert said that on the steel-rimmed spectacles worn by the deceased were marks of burning on the part of the frame that would normally rest near the eyes. On testing the standard lamp he found one of the flexible conductors in contact with the brass metal portion of the standard. The flex was badly twisted inside. He found a fault in the headphones arising from the fraying of the flexibles at the terminals inside the phones. The failure of these two pieces of apparatus, with the fact that the deceased was wearing steel spectacles, would provide the conditions for an electric shock. The actual circuit of the current appeared to be as follows: Live wire of the house supply—standard lamp circuit—metal portion of the standard lamp—hand—spectacles—metal portion of the headphones—wires of the wireless set—earth connection to the set. The voltage was 250 (alternating current). If the earphones had been perfect it would have been unlikely that the current would have jumped to the body of the deceased. The steel spectacles were an important factor, for their being in close contact with the skin enabled more current to pass through. The deceased suffered from a weak heart, which would account for such a low voltage proving fatal.

This is the only case recorded in this country of a fatal accident while wireless was being used. But in 1925 a young woman was struck by lightning in London while standing near the "lead-in" of a wireless aerial that was fused. Considerable damage was done to the window frame and bricks were dislodged from the wall. She suffered only from mild shock and a burn over the right hip. The earth connection was in use. It is therefore no protection against such accidents. An American accident has some interest in this connection: There has been recorded a case of electrocution while using the telephone and holding an electric lamp (*Boston M. & S. J.*, Dec. 26, 1906, p. 741). But here the lamp is not described as at fault. According to an electrical expert, the telephone and electric wires crossed at some point and were swayed together by the wind. The insulation was there burned off and a current of 3,500 volts passed into the telephone wire.

JAPAN

(From Our Regular Correspondent)

May 23, 1927.

Sex Education in Girls' High Schools

Under the auspices of the People's Marriage Guidance Society, the principals of girls' high schools of Tokyo recently met in an informal conference to discuss how the students should be instructed in sex matters and how the problem of marriage and eugenics can be dealt with in schools. In the meeting, Dr. K. Miyake, well known medical expert and director of the society, touched on the scientific side of the question. He urged that both parents and teachers possess themselves of accurate and wide knowledge regarding sex matters in order that many tragedies of marriage may be avoided. The following conclusions were reached: The society should compile textbooks containing ideas on eugenics; teachers must obtain scientific knowledge of sex; sex education must be taught in connection with ethics, domestic science, and physiology and hygiene; a course in the outlines of natural history must be taken by each student; instruction preferably should be given in groups rather than by individual tutelage.

Hospital Accommodation

According to the report from the home office, Japan has at present twenty-one state hospitals, 212 local governmental and municipal hospitals, and 7,046 private hospitals. In ordinary times, hospitals owned by the government can accommodate 4,920 patients; those owned by local governments and municipalities, 17,428; and private hospitals, 97,438. In extraordinary times, 5,166 additional patients can be accommodated by the state hospitals; 20,931 excess patients by local and municipal institutions, and 118,605 emergency patients by private hospitals.

The tuberculosis sanatorium in Tokyo contains 800 beds, while that in Osaka has 350 beds. In twelve other large cities there are 810 beds in all. Within this fiscal year four more sanatoriums with some 150 beds in all will be established.

Improvement in Prison Hygiene

Health problems in prisons have long been discussed. Dr. Akutagawa, chief of prison hygiene, returning from his inspection tour abroad, has made an increased estimate for the next fiscal year to cover the following improvements: The number of prison medical officers will be increased by forty-two; that is, to a total of ninety-eight. Prison physicians not on the official staffs will be paid more than twice as much as before. Money available for the purchase of medicines, medical supplies and instruments will be increased. Appropriations for board and clothing will be greater than before. A commission for the improvement of prison hygiene was recently organized.

A New Girls' College Attached to St. Luke's Hospital

A college for girls will be established in St. Luke's Hospital at the instance of Dr. R. B. Teusler, the chief physician. Besides teaching ordinary subjects, it will train as high class nurses and midwives girls who have graduated from girls' high schools. The expenses of the students are to be paid by the college.

Examination of Sanitary Materials

The sanitary section of the war office has commenced at the request of manufacturers and dealers to make inspections of sanitary materials and medical instruments. Instruments will be examined at the expense of those who request the examination. The following will be accepted: diagnostic instruments and syringes; tourniquets and transfusion equipment; general surgical, eye, ear, nose and throat and dental instruments; roentgen-ray apparatus; all kinds of electrotherapeutic apparatus; artificial sun lamps; microscopes; sterilization apparatus; oxygen inhalers, and clinical thermometers.

Free Distribution of Bile Medium

In order to aid in the early diagnosis of typhoid, since 1924 the metropolitan police has been distributing bile medium in ampules free to practitioners. When inoculated with the suspected material it is returned to the biologic laboratory of the bureau for examination. The plan has proved a great success. In 1924 only 1,134 ampules were used, of which 11.92 per cent proved positive. The number increased in 1925 by about 500, and in 1926, 2,571 ampules were required, of which 44.76 per cent proved positive, the total cases of typhoid being 5,743.

Personals

Prof. Dr. A. Fujinami of the Kyoto Imperial University has departed as exchange professor for South America to study sanitary conditions in Brazil.

Drs. S. Ujihara and U. Koinuma, health officers of the home office, have been made delegates, the one to the tenth Labor Conference at Geneva, the other to the Pan-Pacific Congress at Honolulu.

Dr. Yen Tshi Shang, director of the Infectious Disease Institute of Peking, China, after attending the conference of the Kyushu Medical Association as honorary president, visited Tokyo, where he was cordially received both by medical and political circles.

Mr. T. Toda of the Osaka municipal health experiment station will shortly be granted a doctor's degree in medicine (*igakuhakushi*) for his study on lice and vermin in general. He is the first man in Japan to receive a degree on the basis of this particular subject.

Dr. Y. Sata, formerly president of the Osaka Medical College, has been nominated exchange professor to Germany, and will give lectures on tuberculosis in several universities there. He also carries several reels of films produced by the education department showing ancient Japanese martial arts, it is said.

Publication of Books and Magazines in 1926

A total of 58,971 different books and magazines were published during the past year in Japan, an increase of 17,800 over the number for the corresponding period of the preceding year. Of this number, 20,313 were books and the remainder magazines and official publications. The books on medical science numbered 517, while those on physical science amounted to 231.

ITALY

(From Our Regular Correspondent)

March 15, 1927.

Gift of Library

Prof. Luigi Mangiagalli has given his large private library to the Istituto Ostetrico-Ginecologico of the University of Milan, which bears his name. The library contains, in addition to 10,000 bound volumes, a large number of unbound treatises and rare complete collections of scientific reviews.

Sanitary Regulations Introduced by the Ministerial Council

At a recent session, the ministerial council introduced several regulations pertaining to sanitary matters, for example, it was established that the lawfully recognized delegates of the medical and surgical associations shall make up the membership of the superior council on health and the provincial councils. In addition, the compensation to which health officers are entitled for work of a private nature and for laboratory analyses necessary for health control was fixed. Severe penalties were imposed for neglect to report cases of infectious disease and for fraudulent practices in connection with the manufacture and sale of food products and beverages. The advertising in the public press of preventive or curative agents that are calculated to abuse the good faith of the people is prohibited. An opportune sanitary control of abortion was established, and regulations concerning the practice of midwives and the conduct of lying-in homes were passed. Provisions pertaining to the carrying out of the law in regard to the production and sale of medical specialties were likewise approved.

A Course in Phthisiology at the Military Sanatorium in Anzio

The war ministry has decreed that a two months' course in phthisiology shall be organized at the military sanatorium in Anzio, near Rome, for the benefit of medical officers who are the heads of tuberculosis departments and who are convened at Anzio from the various army corps. Supervision of the course is entrusted to Prof. Giovanni Memmo, *generale medico ispettore* of the army medical corps (Naples). Instruction will be given by the most eminent professors of phthisiologic hygiene, among whom are Professors Maragliano, Ascoli, Sclavo and Alessandri. The primary purpose of the course, General Memmo declared, is the selection of recruits free from tuberculosis. Another object is to determine the best method of establishing the medicolegal evaluation of tuberculous lesions due to military service and the adjustment of pension claims based thereon. During the war, the army medical corps established one department for the diagnosis of tuberculosis in each army corps. In collaboration with the public health service and the Red Cross Society, climatic and sanitary centers were created for patients in the three stages of tuberculosis. From May 1, 1917, to Dec. 31, 1919, 2,202 officers and 120,392 private soldiers were examined. Of the latter, only 15,724 were adjudged fit for military service, while 53,364 were declared to be temporarily unfit and 31,731 were dismissed. The usefulness of the departments of diagnosis is apparent, for early diagnosis led to prompt removal of those found to be tuberculous and temporary removal of all suspects.

As regards the clinical forms discovered, the pulmonary type was represented by 82 per cent, in the last three months of 1918, and by 76.8 per cent, during the year 1919.

Another statistical fact of interest is the length of the interval that elapsed between the date of enrolment and the date on which the tuberculous person was eliminated. In the years 1917 and 1918, a large percentage of dismissals occurred within three months after enrolment.

After bringing out that the belief that the war had multiplied the number of cases of tuberculosis was erroneous and that the war had merely revealed those who were tuberculous or potentially tuberculous, the speaker discussed the tuberculosis mortality statistics for Italy between 1910 and 1924. The highest figures apply to the years 1917, 1918 and 1919, with 62,167, 73,944 and 62,249 deaths, respectively. The increased mortality in 1918 was due, possibly, in part, to the influenza epidemic, which aggravated many types of tuberculosis. But the mortality, after reaching a minimum of 139 per hundred thousand inhabitants in 1921, again began to rise, reaching 142 in 1923 and 159 in 1924. This observation caused Professor Memmo to remark that Professor Celli had emphasized the periodic waves that may be noted in the progress of infectious diseases, and that he himself had discovered and called attention to a decennial rhythm in the spread of typhoid in the army. In closing, the speaker stated that the sanatorium at Anzio had hospitalized thus far 3,447 patients, 3,141 of whom had been cured or improved.

BERLIN

(From Our Regular Correspondent)

May 28, 1927.

Congress of the German Society of Internal Medicine

The main paper on the second topic, "The newer methods of testing the functioning of the stomach and duodenum," was presented by Katsch of Frankfort-on-the-Main. In testing the activity of the stomach, two of the newer methods that mark distinct progress are: (1) the introduction of the retention sound, and (2) the modification of conceptions in regard to gastric acidity. Titration of the gastric contents is recommended, which is easily accomplished through the introduction of simple stimulating solutions. This procedure is based on study of the hydrochloric acid secretion of the stomach, and it was proved that the hydrochloric acid content of gastric juice varies under physiologic conditions. The variations in stimulability are utilized diagnostically in pathologic cases. The author discussed the modern method of introducing stimulating solutions as compared with the fixed conclusions as to gastric secretion based on the Riegel test meal, and emphasized the advantages of the newer method for practical diagnosis and prognosis (histamine test). Varying acidity is not pathognomonic for gastric neurosis. In general practice, the fractional test procedure as carried out with the test breakfast is sufficient for orientation. Diagnostic tests applied to the duodenum introduce refinements in the examination of the biliary apparatus. From the standpoint of method, the oil and the hypophysin experiments are in the foreground. In many cases the results are characteristic, in other cases, they are equivocal. In the diagnosis of occlusion of the gallbladder they are often helpful. Only definite results are of diagnostic value in the microscopic examination of the duodenal sediment. Leukocytosis is not an absolute proof of the existence of inflammatory processes. Duodenal diagnosis has some advantages in connection with marked obstruction of the passages of the pancreas. Occasionally, the ether pain that is elicited by the introduction of ether into the duodenum has diagnostic significance. Weil (Berlin-Neukolln) reported on experiences with the Ehrmann test beverage when only a single sample was removed by the stomach tube, and on examination of the pancreas with the Ehrmann palmitin test, both of which have been found satisfactory. Hosch of Frankfort-on-the-Main and Nonnenbruch of Frankfort-on-the-Oder discussed the osmotic concentration of the cystic bile. Bönninger of Berlin holds that the value of a test of a single sample of gallbladder contents has been overestimated and thinks that for emptying the gallbladder the administration of cream is better than the use of hypophysin. Katsch, in reply, stated that the fractioned evacuation is of value for clinical purposes and scientific study. The strongest stimulation for gallbladder evacuation is furnished by the ingestion of egg yolks.

On the fourth day a joint session with the Deutsche Roentgengesellschaft was held. Dietlen of Homburg read a paper on the importance in internal medicine of a roentgenographic examination of the lungs and mediastinum. From a clinical point of view, there is today no antagonism between roentgenologic observations and those based on a physical examination—one method merely supplements the other. A negative result may be due to improper technic or it may be the result of the physical conditions of the roentgenologic method, with which the roentgenologist must be fully acquainted. Only in a few cases, in the presence of interlobar exudates, substernal goiter or cysts, can roentgenoscopy alone decide. As a rule, the roentgenologic diagnosis must draw on clinical and anatomic observations as well.

Assmann of Leipzig discussed the normal relationships of the roentgenogram of the lung and considered the normal arterial hilum shadow in contradistinction to the shadow of the hilum lymph glands. Haenisch of Hamburg reported on the importance of roentgenologic diagnosis in disorders of the mediastinum and the lung. There is as yet no uniform technic for the preparation of roentgenograms. The operator should see that the delineation of details is as complete as possible up to the margins of the lung fields. For that purpose a small center of concentration and a wide focal distance are imperative. The advantages of the Grödel technic are unquestionable. Lorey of Hamburg presented numerous roentgenograms illustrating the use of iodized oil as contrast mediums. The iodized oil may either be injected or swallowed after anesthetization of the larynx. In spite of careful localization, one does not always succeed in getting the iodized oil to the place where it is needed. The author has found that the best method is to introduce the oil into the desired bronchial branch by means of a tube, while fluoroscopy of the region in question is done. The bronchial mucosa does not resist the presence of the oil and it may be left there for months. It is used chiefly for the diagnosis of bronchiectasis. There are many different characteristic roentgenograms when iodized oil is used as a contrast medium. It is not so useful for the filling of tuberculous cavities, as there is a danger of bacilli being transferred from one point to another. Fleischner of Vienna discussed the roentgenologic diagnosis of interlobar and marginal lobar processes. It presupposes a clear conception of space relationships, and requires fluoroscopic examination from various angles and with different movements of the patient. In addition to the usual angles of projection applied to the erect patient, the examination in lordosis posture is important. Interlobar adhesions present the same appearance as recent fibrous pleuritis, resembling striated bands. Interlobar effusions appear as bands or spindles with sharp demarcation on both sides. If the shadow is sharply demarcated on only one side, the diagnosis of an interlobar process remains uncertain. Such shadows are found also associated with croupous and influenzal pneumonia, and with abscess, gangrene or infarct. The largest number of such roentgenograms with marginal thickening are found associated with tertiary bronchogenic tuberculosis. Infiltrates with limits corresponding to the borders of the lobes are an important sign by which to distinguish these from other forms of pulmonary tuberculosis.

(To be continued)

Marriages

ALEXANDER W. CAVINS, Hartford, Conn., to Miss Grace Lillian Erickson of New Britain, April 23.

CHRISTIAN JACOB ROHWER, New York, to Miss Cornette Fisk of Spokane, Wash., May 12.

CLARK HOMER HALL, Oklahoma City, to Miss Susanmary Roberts of Nevada, Mo., June 9.

WILLIAM B. S. THOMAS, Bellingham, Wash., to DR. RUTH BORING of New York, April 12.

ADOLPH ANDERSEN, Brooklyn, to Mrs. Ethel Crumit of Sound Beach, Conn., May 27.

ROY E. GOLDNER, Lansing, Mich., to Miss Delia Eleanore Byron of Holland, May 14.

MARK G. GATES, Santa Monica, Calif., to Miss Sara Laabs of Echo, Minn., April 17.

ELEY EBERT PERISHO, Streator, Ill., to Mrs. Stella Crumrine of Geneseo, April 29.

WOODHULL LEE CONDICT to Miss B. Lyman Fonda, both of New York, June 6.

Deaths

Philip Butler Newcomb ⊕ Tucson, Ariz.; Washington University School of Medicine, St. Louis, 1901; member of the Society of American Bacteriologists and the American Society of Clinical Pathologists; secretary of the Pima County Medical Society; at various times on the staffs of state hospitals in Pennsylvania, Kansas, Maine and Arizona; pathologist to the Arizona Hospital and Sanatorium and St. Mary's Hospital; attending specialist in clinical pathology to the U. S. Veterans' Hospital, number 51; aged 47; died, April 21.

Frank Woodbury, Philadelphia; Jefferson Medical College, Philadelphia, 1873; formerly professor of materia medica, therapeutics and clinical medicine, Medico-Chirurgical College of Philadelphia, and second vice president of the American Medical Association, 1888-1889; at one time on the staffs of the Medico-Chirurgical Hospital and the Lankenau Hospital; in 1910 was secretary of the Commission on Lunacy of the State Board of Charities; aged 78; died, May 24, of cerebral hemorrhage.

Fred De Forest Bailey ⊕ Brooklyn; Medical Department of the University of the City of New York, 1882; member of the American Ophthalmological Society; consulting surgeon to the Brooklyn Eye and Ear, St. Catherine's and St. Mary's hospitals, the Baptist Home, and the Industrial Home of the Blind; aged 66; died, May 27, of heart disease.

Karl A. Emmerling ⊕ Pittsburgh; Jefferson Medical College of Philadelphia, 1890; on the staff of the Pittsburgh Hospital and formerly on the staffs of the Western Pennsylvania Hospital and St. Francis Hospital; served during the Spanish-American and World wars; aged 59; died, May 6, of pneumonia.

Joseph Schneider ⊕ Milwaukee; University of Wurzburg, Germany, 1874; specialized in ophthalmology; on the staff of St. Joseph's Hospital; served in the Franco-Prussian War; delegate to the International Medical Congress, Berlin, 1890; aged 80; died, June 4, of carcinoma of the prostate.

Joseph Hughes Shaw ⊕ Santa Rosa, Calif.; Medical College of Ohio, Cincinnati, 1908; superintendent of the Sonoma County Hospital, 1914-1918, and since 1924 on the staff of the General Hospital; aged 45; died, May 23, of injuries received in an automobile accident.

J. F. Tancredum Dubois, Buffalo, N. Y.; University of Montreal Medical Faculty, Montreal, Que., Canada; member of the Medical Society of the State of New York; formerly on the staff of the Oswego (N. Y.) Hospital; aged 73; died, May 18, of angina pectoris.

Winfield Scott Harpole, Chicago; Northwestern University Medical School, Chicago, 1897; formerly assistant professor of clinical medicine at his alma mater; at one time on the staff of the Cook County Hospital; aged 61; died suddenly, May 27, of heart disease.

Frank Carpenter Moulding, Watertown, Wis.; University of Michigan Medical School, Ann Arbor, 1876; Medical Department of Columbia College, New York, 1877; Spanish-

American War veteran; aged 73, died, May 11, at St Mary's Hospital, of carcinoma.

Frank L. Henderson, St Louis, Missouri Medical College, St Louis, 1888, member of the Missouri State Medical Association; past president of the St Louis Medical Society, aged 62, died, May 13, at his summer home in Stonington, Conn., of heart disease.

Garry de Neuville Hough, Vineyard Haven, Mass., Bellevue Hospital Medical College, 1884, member of the Massachusetts Medical Society; on the staff of St Luke's Hospital, New Bedford, 1886-1921, aged 66, died, June 1, following a long illness.

George Monroe Horton ⊕ Seattle; Bellevue Hospital Medical College, New York, 1890, past president of the King County Medical Society; formerly county coroner, aged 61, died, May 6, following an operation for adenofibroma of the prostate.

Allan Hubert Galloway, Jr., Laneville, Texas, Fort Worth School of Medicine, 1906, Medical Department University of Louisiana, New Orleans, 1909, member of the State Medical Association of Texas, aged 50, was shot and killed, recently.

Merrill Washington Hill, Redlands, Calif.; Hahnemann Medical College of Philadelphia, 1871, member of the California Medical Association, aged 77, died, May 30, at the Lane Hospital, San Francisco, of carcinoma of the colon.

H. Irvin Woodhead ⊕ Bradford, Pa., Jefferson Medical College of Philadelphia, 1896, formerly president of the school board of Forksville and coroner of Sullivan County, aged 61, died, May 23, of cerebral hemorrhage.

Leslie C. Brock, Smithfield, Va., Medical College of Virginia, Richmond, 1894, member of the Medical Society of Virginia, for twenty-two years mayor of Smithfield, aged 54, died, May 24, of cerebral hemorrhage.

Birna Richie Smith, Connersville, Ind., University of Louisville (Ky.) School of Medicine, 1903, member of the Indiana State Medical Association, aged 54, died suddenly, May 30, at Milroy, of heart disease.

Walter Joseph Otis, New York, Harvard University School of Medicine, Boston, 1880, member of the Massachusetts Medical Society; aged 73, died, June 13, at St Luke's Hospital, Chicago, of heart disease.

John Thomas Foster, Ashley, Ill.; Rush Medical College, Chicago, 1868, formerly a druggist and postmaster of Dubois, aged 86; died, May 17, of arteriosclerosis, chronic myocarditis and chronic nephritis.

Simeon S Martin, Georgetown, Texas, Baylor University College of Medicine, Dallas, 1902, member of the State Medical Association of Texas, aged 60, died, April 30, of cerebral hemorrhage.

Frank Michael MacKnight, Binghamton, N. Y.; Long Island College Hospital, Brooklyn, 1897, aged 54, died, April 30, as the result of cerebral hemorrhage, suffered some months ago.

Anton T Nadig ⊕ Elizabeth, Ill. University of Illinois College of Medicine, Chicago, 1902, aged 57, died May 24 at a hospital in Rockford, of burns received when his home caught fire.

Henry Melvin Forman, Bradford, Ohio, Miami Medical College, Cincinnati, 1880, for nineteen years president of the board of education, aged 72, died in May, of paralysis.

Edwin Myley Schindel, Hagerstown, Md., University of Maryland School of Medicine, Baltimore, 1883, formerly mayor of Hagerstown, aged 72, died, May 7.

James F. Dunn, Burleson, Texas, University of Tennessee College of Medicine, Memphis, 1886, aged 75, died suddenly, May 7, of heart disease.

James Adams Ollerton ⊕ Mesa, Ariz., University of California Medical School, San Francisco, 1925, aged 41, died, March 9, of typhoid.

John Barnett, New Haven, Ill., Barnes Medical College, St Louis, 1898, aged 60, died, May 18, of cerebral hemorrhage.

Sarah E Dunlap, Villa Park, Ill., Hahnemann Medical College and Hospital, Chicago, 1885, aged 79, died, May 7, of senility.

Ferdinand Lommen, Detroit, Catholic University, Louvain, Belgium, 1890, aged 64, died, April 18, of heart disease.

Frank C. Hamilton, Hudson, Ind., Fort Wayne College of Medicine, 1888, aged 80, died, June 1, of gastric ulcer.

Dudley A. Hadley ⊕ Oconomowoc, Wis., Chicago Medical College, 1881, aged 70, died, May 4, of heart disease.

Correspondence

THE IDEAL ANTACID

To the Editor:—In their article in The Journal, May 14, p. 1557, Drs. Loevenhart and Crandall point out the advantage of calcium carbonate in gastric hyperacidity, and conclude that it is the "ideal antacid." In this connection, would it not be appropriate to point out that other neutral antacids, not mentioned in this article, have already been the subject of not a little clinical and laboratory investigation?

All the advantages claimed for calcium carbonate have likewise been claimed for the neutral tribasic phosphates of magnesium and calcium. First "reintroduced" into clinical medicine by Greenwald, these salts have been studied independently by Shattuck and by me. The results were published in The Journal in 1923 and 1924. Since that time, the phosphates have had their share of the usual commercial exploitation.

Perhaps a comparative study of the relative values of all the neutral antacids, including calcium carbonate, might next be in order. It is possible that the clinical value of the several drugs in this group would prove to be about equal. My own impression is that although there is a limited field of usefulness for the neutral antacids, they are not sufficiently powerful to displace entirely the alkaline salts in the great majority of cases during the period of active symptoms.

John L. Kantor, M.D., New York.

TAPEWORM INFESTATION

To the Editor:—The article by Magath and Brown on the "Standardized Method of Treating Tapeworm Infestations" (The Journal, May 14) prompts me to give a method I have used for some time.

The preparation of the patient and the search for the head are practically the same as their method, but in administering the drugs I first pass a duodenal tube. When the bulb has left the stomach I inject through the tube an emulsion of 1 cc. of chloroform and 4 cc. of oleoresin of aspidium in 30 cc. of mucilage of acacia. The tube is left in place, and in about an hour the emulsion is followed by a magnesium sulphate solution. The patient does not experience nausea or untoward effects, and the worm is passed in about an hour.

I do not know that this is original, but I have never failed to obtain the head by this method.

P. S. Kaadt, M.D., Portland, Ore.

DIABETES AND MYELOGENOUS LEUKEMIA

To the Editor:—The article in The Journal (May 21, p. 1626) on the concomitance of diabetes mellitus and myelogenous leukemia is highly interesting, because of the probability of there being more than a concomitance between the two conditions. We know that polymorphonuclear leukocytes contain an enzyme similar in its action to trypsin. The inhibitory effect of trypsin on insulin in human plasma is likewise a familiar phenomenon. The fact that in some of the cases diabetes was found to have existed a variable time prior to the apparent onset of leukemia does not rule out a causal relationship between the two. Although a preleukemic or an occult leukemic period must and, in all probability, does exist, we know nothing about its duration or its manifestations. Further work on this subject might prove more than interesting.

Alexander A. Stone, M.D., Brooklyn.

Queries and Minor Notes

Anonymous Communications and queries on postal cards will not be noticed Every letter must contain the writer's name and address, but these will be omitted, on request.

EFFECTS OF KEROSENE ON SCALP

To the Editor —Please state the effect of kerosene on the human scalp. Would absorbing of the hydrocarbon cause paresis? What would be the effect on the chemical arrangement in allowing kerosene to stand exposed to the air? Would it cause any disturbance to the hair follicle or oil gland?

Roy L. Smith, Tulsa, Okla.

Answer —Kerosene is a weak antiseptic and parasiticide and irritant to the skin Therefore It can be used for parasitic affections of the scalp It is of some use for seborrheic dermatitis of the scalp and, if it has any effect in preventing the outfall of hair, it is presumably due to its irritating—stimulating—effect on the skin. But it does all these things in a crude, disagreeable way All of them can be done more efficiently and much more accurately with drugs of definite composition. Its vogue as a hair tonic and hair restorer is largely due to that popular feeling, which has come down through the millenniums from our barbarous ancestors, that the efficiency of drugs is in proportion to their disagreeableness.

The absorption of hydrocarbons through the unbroken skin would be practically nil, and even if it were absorbed to some extent from kerosene it is a new idea that they might cause paresis, it is just as reasonable an assumption that they might cause rabies Any oil or fat if used to excess on the skin has a tendency to produce folliculitis That is the only effect it would have on the oil glands

DENTAL BLOCK ANESTHESIA

To the Editor —Recently a woman came in with gingival cavities in the lower left bicuspids They were so sensitive that I gave a block anesthesia at the mental foramen Although the signs of anesthesia were perfect, it had no effect on the teeth Could this be psychologic on the patient's part? If not, will you kindly advise me how to treat these teeth so that I can fill them Kindly omit my name

D D S, Cincinnati

Answer —In giving the block anesthesia in the case quoted, only the outer fibers were anesthetized, giving symptoms of complete anesthesia The solution was not deposited close enough to the foramina to anesthetize the fibers that supply the nerves to the teeth

CARE OF THE SCALP

To the Editor —1. Will you inform me concerning Fels Naptha soap? Does it contain alkali or other ingredients that might be injurious in washing the scalp? 2 Is it healthful for the scalp to wash often, say once a week? 3 Is it healthful not to wash the scalp with soap, to use olive oil instead or what oil would be better for this purpose? 4 Is infra-red treatment considered of value in stimulating growth of the hair? Please use initials

V. R. V, M D, Kansas

Answer —1. Fels Naptha is a laundry soap It contains some alkali, as do other laundry soaps; but not enough to injure a normal scalp, which is tougher than the glabrous skin.

2 The frequency with which the scalp should be washed depends on the greasiness of the hair and the amount of dirt it accumulates. Ordinarily, once in two weeks is often enough; but under some circumstances once a week would be the proper interval.

3 Applying olive oil or other oil to the scalp cannot be compared with washing with soap It does not remove dirt, and therefore is not healthful except in the case of pathologically sensitive scalps, to which soap would be an irritant.

4 The heat that is applied by means of infra-red rays would have a tendency to dilate superficial blood vessels. Theoretically, the improved blood supply might stimulate the growth of hair provided the hair follicles had not become atrophic If the follicles had become atrophic, it is unlikely that anything would avail.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

Alabama: Montgomery, July 12-15. Chairman, Dr. S. W. Welch, Montgomery

Colorado: Denver, July 5. Sec., Dr. David A. Strickler, 1011 Republic Bldg, Denver

Connecticut: Hartford, July 12-13. Sec, Dr. Robert L. Rowley, 79 Elm Street, Hartford

District of Columbia: July 12 Sec, Dr. Edgar P. Copeland, Suite 110, 1801 Eye Street, Washington.

Hawaii Honolulu, July 11-14. Sec., Dr. James A. Morgan, Young Bldg, Honolulu

Maine: Bangor, July 5 6. Sec, Dr. Adam P. Leighton, Jr, 192 State Street, Portland

Massachusetts: Boston, July 12 14. Sec, Dr. Frank M. Vaughan, 144 State House, Boston

Missouri St. Louis, July 13-15. Sec., Dr. James Stewart, Jefferson City.

North Dakota: Grand Forks, July 5 8. Sec, Dr. G M. Williamson, Grand Forks

Oregon Portland, July 5 7. Sec, Dr. M. K. Hall, 816 Pittock Block, Portland.

Pennsylvania: Philadelphia and Pittsburgh, July 5 9. Dir. Professional Education Bureau, Mr. C. D. Koch, Harrisburg.

Rhode Island: Providence, July 7. Sec, Dr. B. U. Richards, Providence

South Dakota. Huron, July 19. Dir. Medical Licensure, Dr. H. R. Kenaston, Bonesteel.

Washington: Seattle, July 11. Basic Science Examination, Seattle, July 7 8 Ass't Director, Mr George L Berger, Olympia.

West Virginia Martinsburg, July 26. Commissioner, Dr. W. T. Henshaw, Charleston.

Indiana January Examination

Dr. E. M. Shanklin, secretary of the Indiana Board of Medical Registration and Examination, reports the written examination held at Indianapolis, Jan. 11-13, 1927. The examination covered 15 subjects and included 100 questions. An average of 75 per cent was required to pass. Of the 5 candidates examined, 3 passed and 2 failed. Seven candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent
University of Illinois College of Medicine		(1927)*	92
Indiana University School of Medicine		(1926)	87
Dalhousie University Faculty of Medicine		(1926)	87

College	FAILED	Year Grad.	Per Cent
University of Wurzburg Germany		(1925)	67
National University of Athens, Greece		(1923)†	30

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Illinois College of Medicine		(1910)	Illinois
Kansas (1926), Illinois			
Kentucky School of Medicine, Louisville		(1905)	Michigan
Louisville Medical College		(1903)	Oregon
University of Cincinnati College of Medicine		(1924)	Ohio
Woman's Medical College of Cincinnati		(1890)	Kentucky

* This candidate has finished his medical course and will receive his M D degree on completion of a year's internship in a hospital.

† Verification of graduation in process.

Wisconsin January Examination

Dr. Robert E. Flynn, secretary of the Wisconsin Board of Medical Examiners, reports the written and practical examination held at Madison, Jan 11-13, 1927. The examination covered 18 subjects and included 100 questions. An average of 75 per cent was required to pass. Of the 24 candidates examined, 23, including 1 osteopath, passed and 1 failed Seventeen candidates, including 2 osteopaths, were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad	Per Cent
Loyola University School of Medicine		(1926)	85 4
Northwestern University Medical School		(1926)	86 3
Rush Medical College		(1926) 84 8, 88 6, (1926)*	83.7
University of Illinois College of Medicine		(1926)*	84 8
Indiana University School of Medicine		(1926)	87 2
Harvard University		(1924)	89 6
Tufts College Medical School		(1926)	91
University of Minnesota Medical School		(1926)†	87
Washington University School of Medicine		(1926)	81 7, 85.7, 85 9
University of Nebraska College of Medicine		(1925)	85 3
Columbia University College of Phys and Surgs.		(1926)	85 6
University of Pennsylvania School of Medicine		(1926)	81 2, 86 1
Marquette University School of Medicine		(1926)*	78.1, 78 2, 80.4

Queens University Faculty of Medicine	(1924)	82.5
University of Toronto Faculty of Medicine	(1923)	91.8
Osteopath		85.1

College FAILED	Year Grad.	Per Cent
University of Vienna, Austria	(1919)‡	**

College LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Georgia Medical Department	(1925)	Georgia
General Medical College, Chicago	(1912)	Indiana
Loyola University School of Medicine	(1916)	Illinois
Rush Medical College	(1911), (1925), (1926)	Illinois
University of Illinois College of Medicine	(1926)	Illinois
State University of Iowa College of Medicine	(1924)	Iowa
Medical College of Indiana	(1905)	Indiana
Kentucky University Medical Department	(1903)	Kentucky
University of Minnesota Medical School	(1922)	Minnesota
Hahnemann Med. College and Hosp. of Philadelphia	(1904)	Penna.
University of Texas School of Medicine	(1915)	Texas
Laval University Medical Faculty, Montreal	(1904)	Vermont
University of Toronto Faculty of Medicine	(1924)	New York
Osteopaths (2)		Minnesota

* These candidates have finished their medical course and will receive their M.D. degrees on completion of a year's internship in a hospital.

† This candidate has finished his medical course and received his M.B. degree, and will receive his M.D. degree on completion of a year's internship in a hospital.

‡ Verification of graduation in process.

** No grade given.

Medicolegal

Questionable Examination of Injured Person

(Grimes v. Thompson (Ky.), 289 S. W. R. 290)

The Court of Appeals of Kentucky says that in this action to recover for personal injuries complaint was made of the competence of the evidence of a physician who, at the instance of the defendant or his counsel, went to the plaintiff's home and made a physical examination of her to ascertain the nature and extent of her injuries, when neither the counsel nor the physician of the plaintiff was present. The ethics of such a procedure may sometimes well be called in question, but the evidence showed here that there was no objection on the part of the plaintiff to submit to such examination by the physician, that he remained at her home some two hours or more, making such examination by her acquiescence, and that she had ample time and opportunity, if she had so desired, to have notified her own counsel of such examination, or her own physician, to the end that they might have been present. Under the facts in evidence, the court does not regard this question as serious, especially as it bore on the nature and extent of the injuries, and the jury found for the defendant on the question of liability.

Validity of Will of Sufferer from Insane Delusions

(In re Ayer's Estate (Neb.), 211 N. W. R. 205)

The Supreme Court of Nebraska holds that in a proceeding to probate a will, in which the only question relates to the competence of the testator, and in which it appears that he is not generally insane but suffers from insane delusions with respect to a particular subject, the question for determination is whether he was the subject of such a delusion as controlled or influenced his action in making the will. A testator who is not generally insane but who suffers from insane delusions is competent to make a valid will, provided the insane delusions from which he is suffering do not control or influence his action in making the will. In this case the jury was instructed that if it found from a consideration of all the evidence that the testator suffered from delusions concerning his only son which rendered him insensible to the ties of blood and kindred between him and his son, it should find for the son as contestant of the will. The giving of the instruction was prejudicial to the proponent of the will, as it directed the jury to find for the contestant if the testator had suffered from delusions as therein described, regardless of the fact that such delusions might not have existed at the time of the making of the will, and regardless of whether or not they controlled or influenced the testator's action in making the will. By the instruction the mere fact that the testator may have at some time suffered from delusions such as described in the instruction would be sufficient to set aside the will. Such is not the law as this court understands it.

Society Proceedings

COMING MEETINGS

American Ophthalmological Society, Quebec, Canada, June 27-29. Dr. Emory Hill, Professional Building, Richmond, Va., Secretary.
Minnesota State Medical Association, Duluth, June 30-July 2. Dr. E. A. Meyerding, 11 West Summit Avenue, St. Paul, Secretary.
Montana, Medical Association of, Missoula, July 13-14. Dr. E. G. Balsam, 222 Hart-Albin Building, Billings, Secretary.
Pacific Northwest Medical Association, Boise, Idaho, June 27-29. Dr. Frederick Epplen, 422 Paulsen Building, Spokane, Wash., Secretary.
Wyoming State Medical Society, Cheyenne, June 27-29. Dr. Earl Whedon, Sheridan, Secretary.

ASSOCIATION OF AMERICAN PHYSICIANS

Forty-Second Annual Meeting, held at Atlantic City, N. J., May 3 and 4, 1927

(Continued from page 1991)

Rôle of Thebesian Vessels in Circulation of Heart

Dr. Joseph T. Wearn, Madison, Wis.: Our experiments show that from 70 to 90 per cent of the coronary flow escapes directly into the ventricles and very little directly into the veins. When the perfusate is stained with india ink, it is shown escaping from the thebesian vessels through the walls of the heart. The chamber became greatly dilated but no fluid passed through the capillaries. If the walls did not dilate, the outflow might be different. In perfusion experiments on the human heart two hours post mortem, oxygen and the Locke-Rosenheim solution, with a little epinephrine, being used, a normal beat was obtained. The heart was then injected with dye and we found that, if the chambers do not dilate, the outflow through the thebesian vessels is lower, the flow going out through the veins better. We also injected the heart with celloidin colored blue, and a small plug came out at the end of each thebesian vessel. We have also made sections and found the veins emptying into the thebesian vessels. Therefore we may consider that the thebesian vessels can carry on the circulation when other vessels are occluded. Clinical cases have shown that the thebesian vessels can, in an emergency, supply blood to the organism.

Incidence of Syphilitic Infection in the Negro, and Disabilities It Produces

Dr. James E. Paullin, Atlanta, Ga.: In the last five years, with 4,876 admissions to the adult wards, 662 patients, or 13.8 per cent, had syphilitic infection. The reasons for seeking hospitalization have been involvement of the central nervous system or of the cardiovascular system. Of the 662 patients, 357 had either cardiovascular lesions or central nervous system involvement. The patients with involvement of the central nervous system showed various types of irritation: meningitis, plegias, headaches, convulsions. The cardiovascular group numbered ninety-eight, of which 79 per cent of cases occurred before 50. The aortic cases in negroes were due to cardiac failure. In forty-six persons, aneurysm occurred before 50. The negro is apt to acquire syphilitic infection very early in life. There were two early cases of aortitis, one at 17 and the other at 22. Arteriosclerosis with hypertrophy occurred in fifty-eight cases. The mortality was very high in all these cases. The patients come to the hospital so late that no treatment is of any avail. As to the causes of heart disease, the rheumatic incidence is very low, 8.3 per cent. The syphilitic group is as high as 39.3 per cent. Syphilitic heart disease forms 20 per cent of the adult admissions among negroes. Death often occurs before 50. Eighty-seven per cent of the patients have had no treatment for the primary lesion, and the remainder very inadequate treatment.

DISCUSSION ON PAPERS OF DRS. BROOKS, SCOTT AND PAULLIN

Dr. W. S. Thayer, Baltimore: In regard to the cases cited by Dr. Scott, one man had rupture of the valve occurring at the commissure. This is not a common occurrence. Dilatation of the ring as a cause of aortic insufficiency is a relatively unimportant point. I have not seen instances in which dilatation of the aortic ring alone was the cause. There was a lengthening of the commissure or deformity of the valve not due to syphilis. One point mentioned by Dr. Paullin I should like to comment on: patients entering with these lesions are more or less permanently hospitalized, owing to their syphilis; they are not in shape to take up active work again.

Dr. F. T. Lord, Boston: Regarding the incidence of syphilis in the etiology of angina, in 4,000 cases there were 140 cases of angina, about 4.28 per cent. Aortic regurgitation is important as an indication of the presence of syphilis in angina. Four patients out of five had aortic regurgitation. Syphilis is therefore important in the etiology of aortic lesions. I endorse Dr. Brooks' statements regarding energetic treatment in cases of angina with syphilis.

Dr. Joseph L. Miller, Chicago: I was interested to hear that the angina in syphilis appears at about the same age as the angina from other causes. When I see a man between 40 and 50 without hypertension and without a rheumatic lesion, I suspect that he has had syphilis. Many times it is true. What percentage of Dr. Brooks' cases were noted in which the Wassermann reaction was negative? In Chicago these cases are common among colored people. In syphilis of the aorta, in which the diagnosis was made early, 25 per cent of the cases showed a negative Wassermann reaction. With repeated testing they were still negative, but the autopsies showed evidence of active syphilis.

Dr. R. W. Scott, Cleveland: In these studies we must take into account the social status of the patient. In seventy-five cases, the anginal attacks were very rare. In cases of angina, at autopsy the coronary arteries were found contracted. Of our patients, 50 per cent were negroes. The white people were usually hospital patients.

Dr. Warfield T. Longcope, Baltimore: Has Dr. Paullin collected any figures as to the occurrence of pain? Pain is relatively rare in syphilitic aortitis in the negro, whereas it is fairly common in the white person. I think that in estimating the importance of syphilitic aortitis we must take into account the question of racial differences.

Dr. E. S. Kilgore, San Francisco: Cases recognized earlier are more hopeful; and it behooves us to watch particularly for early signs. Of these, in my opinion, the most valuable single bit of evidence is the roentgen-ray appearance of enlargement of the first portion of the aortic arch.

Dr. M. C. Pincoffs, Baltimore: At the University Hospital in Baltimore we have recently collected some statistics on our cases of cardiovascular syphilis. Our conclusions differ somewhat from those of Dr. Brooks. The average age of patients with cardiovascular syphilis showing anginal symptoms was 40.6 years. This average was obtained from seventeen cases. In contrast with this we found that the average age of patients with nonsyphilitic angina in the same hospital was 60 years. I believe that this difference in age incidence has a diagnostic value. We have found the prognosis decidedly worse in our cases of syphilitic angina than in those of nonsyphilitic origin. Ten of our seventeen patients are dead, with an average duration of life of only 7.3 months after the onset of anginal symptoms. In ten autopsies in cases of syphilitic angina, six showed definite occlusive changes at the orifices of the coronaries.

Dr. W. W. Hamburger, Chicago: Experience in the hospitals in Chicago is comparable with Dr. Paullin's as regards percentages in white and in colored people and also the results gained by treatment of the syphilis.

Dr. Lewis A. Conner, New York: All the evidence with which I am familiar points to the fact that when there is well developed cardiovascular syphilis with aortic insufficiency the time for treatment is long past. Real harm can result from vigorous treatment at that stage.

Dr. A. S. Warthin, Ann Arbor, Mich.: What is true in the negro is true in the white man, too. I agree with Dr. Scott that syphilis is not a disease of the vasa vasorum; it begins at the adventitia and extends to the intima and then the media, which becomes involved by slow infarction. I have never seen cases of aortitis without myocardial involvement. In a case of malignant syphilis in a man, aged 24, who had literally hundreds of sloughing lesions, treatment for four weeks was without avail. He died and the case came to autopsy. I was struck by the picture of the skin lesions. There was infarction due to obliteration of the vasa vasorum of the skin. There was involvement of the corium. The heart lesions showed obliteration of the smaller arteries, not infarction. To the naked eye there was no involvement of the aorta. There were a few pale spots on the heart muscle but no actual involvement in the gross, but the whole myocardium was involved. In the adventitia of the aorta there were early lesions, but the most marked change was a severe myocarditis.

Dr. Harlow Brooks, New York: I am not pessimistic about the treatment of syphilitic myocarditis. In New York there is a large negro population which gives the same percentages. In answer to Dr. Miller, a high percentage showed negative Wassermann reactions. Few patients, except those in private practice, had had treatment of long continuance. The average hospital patients have been treated very poorly. They *only* want to come back *frequently* to take treatment until compensation has been effected. Then they do not want to take the trouble. The usual etiologic factors of angina were present in all my cases. I find it rare among negroes. Dr. Thayer spoke of myocardial syphilis. I think a great deal can be done for these patients in spite of Dr. Conner's pessimism.

Dr. R. W. Scott, Cleveland: I do not argue that myocardial syphilis does not exist, but from a clinical standpoint, if the patient has syphilis of the aorta and the coronary arteries, if the leaflets are spared, he does not have the clinical picture of heart failure. We studied the heart tissues in hearts removed two hours after death and could not find spirochetes. The changes in the hypertrophic hearts are the same as changes in hypertrophic hearts from other causes. One cannot attribute the changes to syphilis. In regard to Dr. Kilgore's remarks as to the early roentgen-ray diagnosis of syphilis, one cannot always make such a diagnosis because the lesions may be very small in the aorta so that a roentgen-ray detection would be out of the question. By the time there is a positive finding by the roentgen ray, there is a 4 plus Wassermann reaction.

Dr. James E. Paullin, Atlanta, Ga.: In answer to Dr. Scott, as to deaths from syphilitic aortitis, the deaths were from syphilitic myocarditis. Two sudden deaths occurring with syphilitic manifestations, and infiltration, as described by Dr. Warthin a year ago, were found. In regard to the pain that these patients have in aneurysm, a negro will go for a great length of time without complaining of any pain whatever. It is difficult to get a history of pain. One man had a thoracic aneurysm with eroded vertebrae and the pain radiated into the sternum and he took it for indigestion. He did not complain of any definite pain. One day he was picked up on the street unconscious and brought to the hospital. He still did not give a history of pain. Unless one devotes time to eliciting a history of indefinite pain, one does not get it in the negro. By taking time and questioning carefully, one will find that there is substernal pain or discomfort. We have been interested in the question raised by Dr. Hamberger of prevention and treatment. Venereal disease among the negroes is considered as a minor accident in an otherwise well spent life. He does not seek relief when he can be cured but when there is marked physical disability.

Gastric and Intestinal Peristalsis

Dr. Walter C. Alvarez, Rochester, Minn.: Motion pictures show a series of rhythmic segmental movements which take place mostly in the abdomen. Sometimes there is a rush movement in the coils, the upper coils trying to hurry the food down, and the lower coils pushing it back. It surges back and forth and finally passes along. The ileocecal ring keeps the food from passing too rapidly into the lower bowel, where the movements are sluggish and much slower. The colon is apparently adapted to holding food, while the small bowel disposes of it quickly. One remarkable phenomenon is invagination of a portion of the bowel, which, in the rabbit at least, takes place frequently. A coil is sucked in; then a contraction forms below it and pushes the invaginated coil out again without any trouble.

(To be continued)

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to The Journal in America for a period of three days No foreign journals are available prior to 1921, nor domestic prior to 1923 Periodicals published by the American Medical Association are not available for lending, but may be supplied on order Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

American Journal of Diseases of Children, Chicago

33: 551 704 (April) 1927

*Intracranial Tumors of Preadolescence H Cushing, Boston—p 551
Congenital Atresia of Foramen Ovale I Lehman, New York—p 585
*Neurocytoma of Suprarenal with Metastases C N Sturtevant and T C Kelly, Philadelphia—p 590
*Nontraumatic Diaphragmatic Hernia in Child J S Leopold, New York.—p 597
Chorea Use of Immune Serum J R. Gerstley and L J Wilhelmi, Chicago—p 602
*Cerebrospinal Fluid in Postdiphtheritic Paralysis J C Regan and A B Guinness, New York—p 610
*Respiratory Metabolism in Infancy and In Childhood V Effect of Moderate Exercise J R Wilson, S Z Levine, H Rivkin and I Berliner, New York—p 618
Gonorrheal Vulvovaginitis in Young S A Yesko, Washington D C.—p 630

Intracranial Tumors of Preadolescence.—Cushing analyzed 1,108 verified tumors of the brain, 154 of these having occurred in children less than 15 years of age Most of these children had cerebellar tumors, most of them had enlarged heads giving Macewen's sign on percussion, and the enlargement of the head was commonly followed by a cessation of headache, with a subjective freedom from discomforts However, in several of the cases, by the time this subjective improvement occurred, vision had begun to fail and had not infrequently been lost before the seriousness of the malady was appreciated These patients may often appear to be so well, in spite of their bouts of vomiting, that the advanced grade of choked disk may come as a total surprise, for children are not as prone as adults to complain of a slight obscuration of vision Vomiting is apt to be the dominating feature of these cases at the outset, and may be regarded as a symptom of localizing value Cushing says that a median tumor of the cerebellum is so common a lesion in preadolescence that when a child has unexplained vomiting, shows a possible enlargement of its head and gives a history of periodical unsteadiness, it is well to be on guard and to have a look at the eyegrounds every week or two

Neurocytoma of Suprarenal—Sturtevant and Kelly report a case of neurocytoma of the left suprarenal gland with metastases to the skull, dura, ribs, vertebrae, right innominata, the right femur and the liver

Nontraumatic Diaphragmatic Hernia.—Leopold's patient was 4 years of age The first symptoms were abdominal discomfort after eating, constipation and loss of weight There was no history of any injury After four weeks, symptoms and signs of an acute gastric and intestinal obstruction suddenly developed At operation all of the small intestine, most of the stomach and some of the colon were found in the thoracic cavity The hernia opening was an enlargement of the esophageal hiatus During the operation the patient stopped breathing He was revived by heart massage done through the hernial opening

Cerebrospinal Fluid in Postdiphtheritic Paralysis—The cerebrospinal fluid from fifteen cases of postdiphtheritic paralysis was studied by Regan and Guinness with regard to its macroscopic appearance, cell count, protein, sugar, chloride and acetone content, permanganate index, meningeal permeability to nitrate and colloidal benzoin reaction The colloidal benzoin reaction seems to afford a delicate test in interpreting the extent of the involvement of the nervous system in these cases

Respiratory Metabolism in Infants.—Two normal children, one subject to cyclic vomiting and one suffering from mild diabetes, have been studied by Wilson et al in the respiration chamber, during rest and exercise From the observations made, it is tentatively concluded that children with mild diabetes may be permitted restricted muscular activity without fear of increasing ketosis There is, however, some danger in permitting unlimited activity

Archives of Neurology and Psychiatry, Chicago

17. 427 570 (April) 1927

*Protein Sensitization in Epilepsy J F Ward and H A Patterson, Sonyea, N Y—p 427
*Experimental Lead Palsy P Reznikoff and J C Aub Boston—p 444
Metastatic Meningo Encephalic Carcinomatosis Without Tumefaction I H Cornwall, New York—p 466
Pathologic Anatomy of Hypophysis Cerebri in Wild Animals H Fox, Philadelphia—p 471
*Metastatic Tumors of Brain J H Globus and H Selinsky, New York—p 481
Recent Work of Pawlow and His Pupils Conditioned Reflexes Sympathetic Nervous System (Orbeli) Epilepsy and Cerebrospinal Fluid (Speransky) W H Gantt, Leningrad, Russia—p 511

Protein Sensitization in Epilepsy—In a study made by Ward and Patterson of the occurrence of protein hypersensibility in 1,000 epileptic patients and in 100 nonepileptic controls, the incidence of protein sensitization in the Craig Colony group was found to be 37 per cent Protein sensitization was manifested in 56 8 per cent of the patients examined in the New Jersey State Village for Epileptics In the nonepileptic control group, 8 per cent showed positive reactions Raw protein extracts were employed in this study.

Experimental Lead Palsy—Experiments made by Reznikoff and Aub with isolated nerve-muscle preparations from frogs have shown that the onset of fatigue in muscles which have been exposed to lead is much more rapid and complete than normal The contractility of 'leaded" muscles is often completely lost, and recovery from fatigue is always impaired Neither lead nor fatigue alone causes palsy, both are necessary to establish the condition Experiments indicate that the physiologic lesion of lead palsy is in the muscle itself, and that the muscles which are fatigued are most susceptible to lead paralysis An attempt is made to explain susceptibility to lead palsy on the basis of the chemical and physiologic reactions between the metabolic products formed during muscular activity and lead as it occurs in the human organism

Metastatic Tumors of Brain—Twelve cases are reported by Globus and Selinsky They assert that an acute onset of cerebral symptoms, followed rapidly by the development of neurologic signs of a disseminated character and symptoms of increased intracranial tension, in the absence of changes in the disks, and positive serologic or febrile manifestations, suggests strongly a metastatic neoplastic process The probability is strengthened further by the rapid evolution of neurologic signs and the appearance of progressive wasting and of asthenia out of proportion to that usually encountered in primary tumors of the brain Under such circumstances, search should be made for the primary malignant focus

Archives of Pathology & Lab. Med., Chicago

3: 577 748 (April) 1927

Tularemia Microscopic Changes of Lesions in Man E Francis and G R Callender, Washington, D C—p 577
Immune Reactions in Tissue Culture I Reaction of Rabbits' Lungs to Pigeon Erythrocytes W Bloom, Chicago—p 608
Reticulo Endothelial System I Response to Infection M A. Goldzieher and S M Peck, New York—p 629
*Id II Effect of Mercury Salts and Sulpharsphenamine M A Goldzieher and S M Peck, New York—p 635
Rhabdomyoma of Tongue K W Dewey Chicago—p 645
*Effect of Lowering Blood Pressure on Myocarditis Caused by Epinephrine Hydrochloride and Caffeine in Rabbit F H Barksdale, St Louis—p 658
Histologic Demonstration of Phosphatides and Cerebrosides S Shapiro, New York—p 661
Dysentery G R Callender, Washington, D C—p 665

Therapeutic Action of Mercuric Chloride and Sulpharsphenamine.—It is suggested by Goldzieher and Peck that the therapeutic effects of mercuric chloride and sulpharsphenamine are based on stimulation of reticulo-endothelial function The reticulo endothelial cells of the liver and spleen respond to these drugs with marked swelling and vacuoli formation These changes subside quickly, and are followed by proliferation There is also a marked increase of phagocytic activity in the Kupfter cells, as well as in the reticulum cells of both the pulp and the follicles of the spleen

Lowering Blood Pressure Caused by Epinephrine.—Two methods, namely, blood letting combined with inhalation of amyl nitrite, and injection of sodium nitrite followed by inhalation of amyl nitrite, were used by Barksdale in an attempt to diminish the increase in blood pressure that results from the intravenous injection of epinephrine hydrochloride and of caffeine While it was not possible by either of these methods to prevent the increase in blood pressure, both greatly hastened the return of the blood pressure to normal.

Johns Hopkins Hospital Bulletin, Baltimore

40: 201 264 (April) 1927

New Ophthalmoscope J S Friedenwald, Baltimore—p 201
*New Organism That May Be Factor in Causation of Puerperal Infection. J W Harris and J H Brown, Baltimore—p 203
*Physical Relation of Cells in Tissue Cultures F. E Kredel, Baltimore.—p 216
Windows and Actinometers for Heliotherapy A. H Pfund, Baltimore.—p 228
Amylase Accelerator and Antitrypsin of Normal Human Serum C. O'Donovan, Jr and W C Davison, Baltimore—p 238
Influence of Administration of Cod Liver Oil to Mother on Development of Rickets in Infant A A Weech, Baltimore—p 244.

Etiology of Puerperal Infection.—In the course of a study of the bacterial flora of the female generative tract during pregnancy, labor and the puerperium, Harris and Brown have encountered in six patients an organism which, apparently, has not heretofore been described In five instances they were able to isolate this organism in pure culture; in the sixth case, the culture was lost but the organism was identified by the organisms obtained from the other five patients. The organism closely resembled *Actinomyces necrophorus.* It differs from the latter in being nonhemolytic when grown in the blood agar plate, and in failing to ferment lactose The two organisms do not cross-agglutinate in immune serum.

Physical Relation of Cells in Tissue Cultures.—The evidence presented by Kredel for the anatomic independence of cells in the tissues of the chick may be summarized as follows. The effect of a mechanical injury at the surface of a cell is transmitted rapidly throughout the cell, but does not appear to affect adjacent cells. As it coagulates, an injured cell loses its adhesiveness for other cells. This latter fact indicates the importance of surface tension in the natural adhesiveness of cells The conclusion is drawn that, in the chick, cells of mesenchyme, amniotic ectoderm, smooth muscle, endoderm of the intestine, liver, endothelium, and epithelium of the skin are held together by simple adhesion and not by fusion or by intercellular protoplasmic bridges

Journal of Immunology, Baltimore

13: 273 317 (April) 1927

*New Plan for Applying Specific Treatment of Pollen Hay Fever. A. Brown, New York—p 273
*Blood Grouping of Polar Eskimo. P Heinbecker and R H. Pauli, New York—p. 279.
*Influence of Age on Skin Sensitiveness of Tuberculous Guinea Pigs. J. Freund, Asheville, N C—p 285
Absorption of Toxic Substance of Normal Goat Serum by Guinea Pig Tissue J D Aronson, Philadelphia—p 289
Bacteriophage Antibacteriophage Reaction E Weiss, Chicago—p 301.
Bacteriophage Purified with Lipoids. E. Weiss, Chicago—p 311.

Perennial Treatment of Pollen Hay-Fever.—A modification of the specific treatment of hay-fever is presented by Brown, consisting in a distribution of the injections at three to four week intervals, throughout the year, instead of the usual preseasonal injections at from five to seven day intervals. The few constitutional reactions observed in the treatment are not sufficient to contraindicate its use.

Blood Grouping of Eskimos.—Of the polar Eskimos studied by Heinbecker and Pauli, 80 65 per cent fall into group I. Those falling into groups II, III and IV were generally shown to be half-breeds.

Skin Sensitiveness of Tuberculous Guinea-Pigs.—Freund found that young, experimentally infected, guinea-pigs show slight, if any, reaction to the injection into the dermis of a watery extract of *B. tuberculosis,* despite the presence of gross lesions of tuberculosis in the regional lymph nodes and in the spleen. The adult mother pigs, infected under the same conditions, when injected with the same extract show at the site of injection marked redness, edema and necrosis.

Michigan St. Med. Soc. Journal, Grand Rapids

26: 223 278 (April) 1927

Phases of Local Anesthesia. J. S. Lundy, Rochester, Minn—p. 223.
Tuberculosis as Systemic Disease. E. Loewenstein, Vienna.—p. 236.
Treatment of Dermatomycoses with Iodine. W. L. Chandler, East Lansing—p 244
*Subacute Bacterial Endocarditis. F. J. Smith and D. M. Brumfiel, Detroit—p 245
Vitamins and Health: Chronologic Study of Vitamins from 1915. L. J. Burch, Mt Pleasant—p. 250.

Subacute Bacterial Endocarditis.—Twenty-eight cases are analyzed by Smith and Brumfiel. There was a history of acute rheumatic fever and tonsillitis in fourteen; scarlet fever in five; chorea in two; oral sepsis in ten, and influenza in four. Asthenia was the initial symptom in ten cases; headache in four; abdominal pain in four; cough in five cases Of twenty-one cases in which a positive blood culture was obtained once or more, the organism was identified as *Streptococcus viridans* in all but two cases. Circumstantial evidence indicates, in many of the patients, that the tonsils, paranasal sinuses and abscessed teeth seem the most likely avenues to the blood stream. It is rather striking that the general experience of others in finding that a large percentage of periapical abscesses yield pure cultures of *Streptococcus viridans* was substantiated in certain of the cases by the recovery of an organism identical with that obtained from the circulating blood Certain symptoms tended to prevail; in twenty-seven cases there was asthenia; in eighteen, loss of weight, in twelve, anorexia; in eight, arthritis, and in fourteen, dyspnea Some degree of recognizable anemia appeared in eighteen, obvious malnutrition in fourteen; a demonstrable cardiac lesion in all; demonstrable clubbing of the fingers in thirteen, petechial hemorrhages in twenty-two, and the spleen was palpable in eleven of the twenty-eight. There was sufficient clinical evidence to warrant the diagnosis of aortic insufficiency in nine cases; aortic stenosis in one; mitral insufficiency in twenty-one; mitral stenosis in fifteen; and congenital defects of the heart were suspected in four. Twenty-four cases showed unmistakable evidence of embolism. Albuminuria appeared in twenty-one cases. Treatment proved unsatisfactory.

Wisconsin Medical Journal, Milwaukee

26: 187 236 (April) 1927

Massive Collapse of Lung and Allied Conditions. J. Brennemann, Chicago—p 187
*Chronic Pyelitis in Infancy and Childhood. H. F. Helmholz, Rochester, Minn—p 189
Pyelitis in Pregnancy W. G Sexton, Marshfield—p. 195.
Symptomless Hematuria Early Sign of Bladder Tumors. D. N. Eisendrath, Chicago—p. 198
Diagnostic Problems. L M Warfield, Milwaukee—p. 202.
Insulin and Glucose in Nondiabetic Acidosis. W. Thalhimer, Milwaukee.—p 204.
Diverticulitis of Ileum: Acute Perforative C. Reineck, Appleton—p. 205.
Mesenteric Thrombosis with Symptoms of Obstruction. G. W. Carlson and C. D Neidhold, Appleton—p 205.
Salivary Calculi E. A. Waldeck, Milwaukee—p 206.
Puncture Wounds Point in Care W Fletcher, Salem—p. 207.
Humoral Transmission of Nervous Impulses H. Fredericque, Liege, Belgium—p. 207.
Influence of Various Ketone Bodies on Action of Insulin. E. L. Sevringhaus, Madison.—p. 208.

Chronic Pyelitis in Infants.—Among 150 cases of pyelitis seen by Helmholz, there were forty-six cases of abnormality. These cases accounted for the chronicity of the infection. The great majority of these patients with anatomic lesions showed good renal function and relatively few symptoms, but there is the constant danger of pyelonephritis that may prove fatal

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below Single case reports and trials of new drugs are usually omitted

Annals of Tropical Medicine and Parasitology, Liverpool

21:1 87 (March 25) 1927

*Type of Tubercle Bacillus in Sputum in Pulmonary Tuberculosis in Trinidad J L Pawan —p 1
*Case of Opisthorchis Felineus in Siam C Prommas —p 9
Hippobosca Equina J I Roberts —p 11
Administration of Draughts to Sheep and Cattle Treatment for Verminous Gastro Enteritis E L Taylor —p 27
Effect of Desiccation on Molluscan Disease Carriers F G Cawston —p 35
Tsetse Fly Belt Area in Nuba Mountains, Province of Sudan R G Archibald —p 39
*Infection with Lagocheilascaris Minor (Leiper) J L Pawan —p 45
Larval Trematodes from North Wales I Fasciola Hepatica W. R. Wright —p 47
Id II Cercaria Cambrensis W R Wright —p 57
Collection of Phlebotomus sp of Minutus Group S Adler and O Theodor —p 61
Cestode Families Monticellidae and Ichthyotaeniidae T J Meggitt —p 69.

Type of Tubercle Bacillus in Trinidad—Examination by Pawan of the sputum from forty different adults suffering from pulmonary tuberculosis in Trinidad revealed in every instance the human type of tubercle bacillus The cultural characteristics and the results of animal inoculation did not differ in any way from those seen in temperate climes. Bovine tuberculosis exists among bovines in Trinidad

Opisthorchis Felineus in Siam—Prommas relates the case of a boy, aged 17, who had fever, loss of appetite with abdominal pain, and passed frequent yellowish, watery stools The red blood count was 2 330 000, leukocytes, 21,600, polymorphonuclear leukocytes, 91 per cent; small lymphocytes, 8 per cent; transitionals, 1 per cent The blood was negative for malarial parasites The stool was examined once and was negative The boy died At postmortem examination the liver was greenish, and slightly enlarged The capsule was smooth On incision more than a thousand flat thin worms were found in practically every bile duct, even in the common duct, and in the gallbladder. These worms proved to be *Opisthorchis felineus*

Infection with Lagocheilascaris Minor.—Pawan's patient, a native of Trinidad, had a discharging mass on the side of the neck of eight years' duration From it escaped continuously large numbers of *Lagocheilascaris minor*, which is found in subcutaneous abscesses in Trinidad, in Dutch Guiana and in the intestine of the cloudy leopard (*Felis nebulosa*) of South America

Brain, London

50:1 112 (March) 1927

*Encephalitis Periaxialis Diffusa T G Stewart, J G Greenfield and M A Blandy —p 1
Manganese Toxemia Effects of Liver Feeding J R Charles —p 30
Relationship Between Strength of Conditioned Stimulus and Size of Resulting Conditioned Reflex P S Kupalov and W H Gantt —p 44
*Endocrines in Epilepsy H I Schou and W Susman —p 53
Cerebellar Terminations of Spinocerebellar Fibers of Lower Lumbar and Sacral Segments of Cat G M Beck —p 60

Diffuse Periaxial Encephalitis — Three new cases of Schilder's form of encephalitis are described by Stewart et al The patients were aged 8, 3 and 43 years, and the length of disease was eighteen months, three months and nine days, respectively In one case the first symptom was deafness in another, the initial blindness was associated with papillitis and was due to demyelination of the optic nerves

Manganese Toxemia.—Seven cases of manganese poisoning are described by Charles The suggestion is made that the nervous phenomena are due to deficiency of a hepatic hormone Some benefit was obtained in a few cases from treatment with liver.

Endocrines in Epilepsy.—Various endocrines, the genital glands from six cases, and the liver from one case of epilepsy were examined by Shou and Susman Deviations from the normal were present All organs examined in the first five cases gave ample evidence of perivascular necrosis The sixth, a mild case, did not show such lesions That there are significant lesions in these cases is obvious Hypertrophy was a feature of the parathyroids, the pituitaries and the islets of Langerhans The liver, the islets of Langerhans, the pituitary and the suprarenal all showed lesions This was also true of the acinar tissue of the pancreas The pathologic agent has a selective action on chromophil cells, as seen in the suprarenals and pituitaries A toxic necrosis is present in the perivascular channels of all the organs examined, if the case has been a severe one

Journal of State Medicine, London

35. 187 248 (April) 1927

Common Mistakes in Teaching of Physical Training H B Hill —p 187
Silicosis Among Hard Ground Workers in Coal Mines N Tattersall —p 203
*Defects of Reading and Writing in Children Association with Word Blindness and Mirror Writing M Critchley —p 217
Securing Cooperation of Fathers in Child Welfare D H Geffen —p 224
Aspects of Industrial Welfare Work G Smith —p 228

Defects of Reading and Writing—According to Critchley many cases of gross reading defect in children who are otherwise of normal intelligence are, in reality, instances of congenital word blindness This anomaly comprises an inability to grasp the significance which is conventionally attached to graphic symbols, it is possible that a maldevelopment of the angular gyri constitutes the anatomic basis for this defect Many of these children are ambidextrous, and their left handed efforts at writing tend to conform to the mirror writing type This is due to the uncontrolled activity of the kinesthetic or corrective supervision of the visual imagery.

South Africa Medical Association Journal, Cape Town

1: 101 128 (March 12) 1927

Analysis of Twenty Years' Statistics in Country Hospital M J A Des Ligneris —p 102
Aneurysm O K Williamson —p 107
*Etiology of Pulmonary Thrombosis M J Cohen —p 112
Complement Fixation Reactions for Tuberculosis in South Africa A Pijper and B D Pullinger —p 116
*Cerebral Abscess Following Tooth Extraction W G Robson —p 118
Rupture of Umbilical Cord Before Birth F M Morris —p 119

Etiology of Pulmonary Thrombosis—Cohen is convinced that micro-organisms play a great if not the leading part in thrombosis Eleven cases out of eighteen in which a bacteriologic investigation was made showed streptococci to predominate

Tooth Extraction; Cerebral Abscess.—Robson relates the case of a man who had had typical attacks of migraine for four years, the seat of maximum intensity of the headache being in the left temporal region Dental roentgenograms showed many areas of periapical necrosis, and extensive absorption of perialveolar bone Four teeth were extracted under local anesthesia On the third day, four more teeth were extracted On the fourth day, after a violent sneeze, the patient discovered that the vision on the right side had gone By the sixth day, the headache had become constant and of a boring character and nothing short of morphine afforded relief He had a rigor in the morning The loss of vision was discovered to be a bilateral homonymous hemianopia On the tenth day, lumbar puncture was performed, and the fluid, quite clear, came off under considerable pressure A provisional diagnosis of cerebral abscess was made Finally, coma supervened and death ensued on the eleventh day At the necropsy an acute abscess about the size of a hen's egg was found in the occipital lobe

"Gann," Tokyo

21. 1 15 (March) 1927

Influence of Fifty Eight Chemical Combinations on Animal Cancer F Ishiwara —p 1
Primary Carcinoma of Lung with Polymorphous Cells S Kaneko —p 5.
Case of Adenoma of Uterus of Rabbit, with Hypertrophy and Fat Secretion in Milk Glands M Koyama —p 7
Morphologic Changes of Pavement Epithelium of Albino Rats Fed on Vitamin A Deficient Diet Y Fujimaki, T Kimura, Y Wada and S Shimada —p 8

Annales de Médecine, Paris

21: 5-88 (Jan.) 1927. Partial Index

Plastic Pericholecystitis. M. Chiray et al.—p. 5.
Percussion Sounds from the Acoustic Standpoint. E. Rist.—p. 19.
Late Congenital Syphilis in Adults. H. Grenet and L. Pellissier.—p. 41.
Pharmacodynamic Researches on the Oculocardiac Reflex. J. Kreis.—p. 50.
*Cyclic Vomiting with Acetonemia. M. Labbé.—p. 82.

Pathogenesis of Cyclic Vomiting with Acetonemia.—In Labbé's case a young girl developed considerable acidosis and uncontrollable vomiting on the occasion of a mild attack of appendicitis. Large amounts of ammonia, amino-acids, acetone bodies and organic acids were found in the urine. There were also urobilin and bile. Investigation revealed attacks of cyclic vomiting in childhood. On each occurrence of vomiting, acidosis was the prevailing symptom. Acidosis results from disturbances in fat metabolism, due to lesions of the liver. In a fatal case, death occurs not from acidosis but from degeneration and consequent insufficiency of the liver. The disease should be differentiated from appendicitis and from meningitis. The latter may be accompanied by acidosis; on the other hand, attacks of cyclic vomiting may be complicated by meningeal reactions. Treatment with alkalis does not cure, but brings about improvement. The action of insulin is unappreciable.

Archives des Maladies de l'App. Digestif, etc., Paris

17: 1-120 (Jan.) 1927

Etiology of Gangrenous Appendicitis. G. Michel et al.—p. 4.
Action of Insulin on Motility and Emptying of the Stomach. D. Simici et al.—p. 17.
*Emotivity and Anguish in Colitis with Acid Fermentation. R. Savignac and R. Sarles.—p. 44.

Emotivity and Anguish in Colitis with Acid Fermentation.—Savignac and Sarles have frequently observed emotivity and mental anguish in cases of colitis with fermentation and formation of large amounts of organic acids in the intestinal contents. Phenomena of irritation of the vegetative system were present. Of 172 patients with this kind of colitis, the mental condition mentioned was observed in 71 per cent. In 8 per cent, the syndrome of depression prevailed. Increase in intestinal acids modifies the acid-base balance of the blood, favoring the appearance of mental and nervous phenomena in patients with a corresponding nervous constitution. Subsidence of the colitis is followed by disappearance of the emotivity and anguish.

Gynécologie et Obstétrique, Paris

15: 1-80 (Jan.) 1927

Fate of New-Born Infants of Tuberculous Mothers. A. Couvelaire.—p. 1.
*Bone Pains in the Menopause. J. Dalsace and C. O. Guillaumin.—p. 10.
Torsion of Parovarian Cysts. P. Mallet-Guy and H. Tillier.—p. 18.
Cyst in Tuberculous Ovary of a Pregnant Woman. Cartier and Lantuéjoul.—p. 36.
Rôle of Placental Epithelium. G. Chappaz.—p. 39.

Pathogenesis and Treatment of Pains in the Bones in the Menopause.—Dalsace and Guillaumin point out that the natural or induced menopause is sometimes the origin of pains simulating chronic arthritis. These pains become exacerbated during the night; especially on voluntary movements. They are located in the bones rather than in the joints, and are frequently associated with muscular weakness. Joint deformities are not observed. Examination of the blood reveals a decrease in calcium and phosphorus. The pains tend to disappear spontaneously in from eight to sixteen months. Nevertheless, active treatment is required, since they may represent the first stage of arthritis deformans. Logically the treatment consists in restoration of salts to the body tissues. The authors use phosphorus by preference. Two teaspoonfuls of a solution containing 10 Gm. of phosphoric acid in 100 Gm. of water are given daily. Cod liver oil mixed with phosphorus and epinephrine may also be of use in combating the mineral deficiency. The effect of this treatment is greatly enhanced by ultraviolet rays. Ovarian extract alone proved to be without influence.

Journal de Physiol. et de Pathol. Générale, Paris

24: 701-1048 (Dec.) 1926. Partial Index

*Changes in White Blood Corpuscles During Work. A. F. Goldberg and M. V. Lepskaia.—p. 715.
*Effect of Anticoagulants on the T-Ventricular Complex. J. Freud.—p. 725.
By-Effects of Heterogenic Transfusions and Shock. R. Cruchet and J. Caussimon.—p. 762.
*Natural Lysis of Tubercle Bacilli in Sputum. C. Richet, Jr., et al.—p. 788.

Changes in White Blood Corpuscles During Physical and Mental Work.—Goldberg and Lepskaia examined the blood of 300 healthy persons during physical and mental work. In both the number of leukocytes increased, especially that of the neutrophils, which reached 82 per cent. The lymphocytes and eosinophils were reduced; the eosinophils disappeared entirely when the work was prolonged. The number of basophils and of monocytes increased; neutrophil myelocytes, plasmocytes and Türck's cells appeared. The changes in the leukocyte picture are ascribed to irritation of the hematopoietic organs by products of an accelerated nitrogen metabolism in muscular exercise, and by products of an accelerated phosphorus metabolism in mental exercise. The phenomena were more pronounced in intellectual work than in physical work. There was return to normal in about two hours.

Effect of Anticoagulating Substances on the Aspect of Electrocardiograms.—Freud's experiments tended to demonstrate a correlation between the T-ventricular complex and the capillary circulation. For this purpose dogs were injected intravenously with various anticoagulants. The electrocardiograms showed a longer duration and a larger amplitude of the T wave. Owing to reduced coagulability of the blood plasma, the quantity of liquid blood increases. A greater effort is then required on the part of the circulatory motor apparatus. The theory is that the increase in the motor functioning is limited to the aortic bulb and to the supravalvular portion of the aorta during the T-wave phase.

Natural Bacteriolysis in Tuberculous Sputums.—Researches were made by Richet, Hauduroy and Delbreil on sputums of twenty-nine tuberculous patients. In 28 per cent of the sputums, treated with heat, the bacilli disappeared, as far as their visible forms were concerned. The bacteriolysis started after two or three days; it was accomplished in from ten to fifteen days. Guinea-pigs inoculated with these sputums did not develop tuberculosis. A series of the sputums were diluted with sodium chloride solution or peptonized water previous to the exposure to heat. The lysis of the tubercle bacilli was enhanced by this treatment; it was also enhanced by previous sterilization. The bacteriolysis was most frequent in sputums of patients who were improving; it was sometimes observed in sputums of patients in the preagonal stage. The authors think that the lysis is due to a thermostable, nonfiltrable principle, and not to a thermolabile ferment or to a bacteriophage. This principle may take part in the defense of the lungs against tubercle bacilli.

Journal de Radiologie et d'Électrologie, Paris

11: 1-80 (Jan.) 1927

*Roentgen-Ray Diagnosis in Gynecology. R. Grégoire et al.—p. 1.
Roentgen-Ray Examination of Uterus and Tubes Following Lipiodol Injection. G. Cotte and P. Bertrand.—p. 24.
Ossification Points in the Knee of the New-Born. R. Jardin.—p. 30.

Roentgen-Ray Diagnosis in Gynecology.—Grégoire, Béclère and Darbois emphasize the fact that intra-uterine injection of lipiodol is harmless under a pressure of 30 cm. of mercury. With this injection roentgen-ray pictures valuable in diagnosis of pelvic tumors, metrorrhagias and tubal permeability can be obtained. In case of fibroma the uterine cavity appears enlarged and deformed. In case of cyst, the uterine image is normal, the tubes are permeable, the seat of the lesion being on one side. Considerable deviation of the uterus or fallopian tubes suggests intraligamentous tumor. In case of tubal tumors, a distended and obliterated oviduct is visible in the roentgenograms. In metrorrhagias, changes may appear in the uterine cavity or in the uterine contour. The seat of the lesion can thus be established exactly. Roentgen rays are most valuable in examination of tubal permeability. The paper contains a detailed description of the technic used; the indications are discussed and results recorded.

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, JANUARY-JUNE, 1927

Abstracts of important articles in the following journals have been made in the Current Literature Department of THE JOURNAL during the past six months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in the United States and to Fellows of the American Medical Association for a period not exceeding three days. Two journals may be borrowed at a time. No foreign journals are available prior to 1922, nor domestic journals prior to 1923. Requests for periodicals should be addressed to the Library of the American Medical Association and six cents in stamps should be enclosed. This covers the average expense of mailing a journal. Thus most of these journals are accessible to the general practitioner.

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Annals of Tropical Medicine and Parasitology. Irreg. £1 2s. 6d. per vol. Liverpool.
*Arbeiten aus dem anatomischen Institut der Kaiserlich-Japanischen Universitat zu Sendai. Irreg. Sendai, Japan.
Archiv für Dermatologie und Syphilis. Irreg. Price varies. Berlin.
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The letters used to explain in which department the matter indexed appears are as follows: "E," Editorial; "C," Correspondence; "Ml," Medicolegal; "P," Propaganda for Reform; "ME," Medical Economics; "ab," abstract; the star (*) indicates an original article in The Journal.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Society Proceedings" are indexed under these titles at the end of the letters "B," "D," "M" and "S." State board examinations are entered under the general heading State Board Reports, and not under the names of the individual states. Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

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SOCIETIES

Acad —Acadamy	*M —Medical*
Am —American	*Med —Medicine*
A —Association	*Nat —National*
Coll —College	*Phar —Pharmaceutical*
Conf —Conference	*Phys —Physicians*
Cong —Congress	*Ry —Railway*
Conv —Convention	*S —Surgical*
Dist —District	*Soc —Society*
Hosp —Hospital	*Surg —Surgery, Surgeon*
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